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Vol. 179 No. 2 30 Church St., New York 7, N. Y. January 9, 1961

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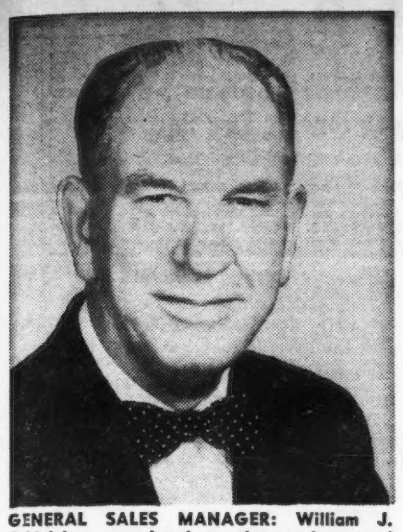

GENERAL SALES MANAGER: William J. Schleicher, appointed to the newly-created post of general sales manager by Cowles Chemical Company, Cleveland, Ohio.

GE's Silicone Bill: It Goes Up a Million

The silicone products department of General Electric Company, already tossing around $4 million in new facility money, has decided to go for another million. This will build a plant to make new types of intermediate silicone chemicals.

The new installation will be based at department headquarters in Waterford, N. Y., and will be housed in a two-story structure that will add approximately 5,000 square feet of manufacturing space to the thirteen-year-old silicone plant.

The facility, which is slated to go into operation in mid-1961, will be flexibly designed to carry out many reactions, including Grignard syntheses.

Other Facilities Under Construction

Other facilities under construction are a $1 million silicone fluids finishing operation, which was started last April and is going into operation this month; and a $3 million plant for the manufacture of silicone chemical intermediates, started last June.

The Waterford unit is a completely integrated silicone production operation which manufactures basic chemical intermediates and silicone gums, rubbers, resins, fluids, emulsions, greases and specialties.

To meet still-increasing demands for silicones in aircraft and missiles and in the electrical, textile, construction, polish and other industries, its capacity has increased steadily.

The new $1 million process plant will be the establishment's ninth manufacturing structure and one of seventeen major bulidngs at the site.

In addition to its position as the center for G-E silicone manufacturing, the Waterford plant is also headquarters for the national sales organization of the department and for silicone research and development.

Ethyl Benzene Unit Set To Be Built at Suntide

Construction of an ethyl benzene separation unit will start March 1 at the Suntide Refining Company plant in Corpus Christi, Tex.

The plant, Suntide's sixth petrochemical unit, will be designed for 30-million-pound-per-year capacity. It is scheduled for completion early in July. Suntide is a wholly-owned subsidiary of Sunray Mid-Continent Oil Company, Tulsa, Oklahoma.

The new unit will be a further separation step of the mixed xylene product of the "Udex" unit and will operate in conjunction with the "Udex" and orthoxylene separation units.

Chemical Men Sound an Alarm: Don't Reduce Any More Tariffs; We Have Enough Hardship Now

Chemical producers, plagued by twin problems of rising costs and increasing competition from imports, are sending out alarm signals. They are again appealing to the government not to permit any broad-scale reductions in American tariffs that will give foreign suppliers a stronger foothold in the American market. Gist of their warning: Unless extreme care is exercised in selecting items to be placed on the tariff trading block, some US firms soon will be faced with two choices—going out of business or transferring their operations and investments abroad.

The industry's concern over the situation was detailed in briefs and statements filed with the Tariff Commission and the Committee for Reciprocity Information last week.

Heard at Preliminary Hearing

Occasion was the hearings on the supplemental list of products being suggested for consideration at the forthcoming tariff bargaining sessions under the General Agreement on Tariffs & Trade (GATT) in Geneva.

The industry's two major trade organizations—Manufacturing Chemists' Association and Synthetic Organic Chemical Manufacturers Association—each cautioned the negotiators to be selective in their discussions of tariff negotiations and not bargain away tariff protection for items which may still be only laboratory curiosities or not yet even developed.

The associations had in mind particularly the announcement of last November 22 listing two "basket clauses" of the chemical schedule—paragraphs 5 and 23 of the tariff act of 1930—as possibly being offered for bargaining purposes at Geneva.

These two paragraphs deal with medicinals in broad terms without naming any specific items. Any consideration of tariff reductions on chemicals should be on a product-by-product basis, it was urged.

Along the same lines, Lederle Laboratories, division of American Cyanamid Company, Pearl River, N. Y., warned that these two paragraphs not only include many thousands of existing products, but

—Continued on page 47

COLOR DIVISION CHIEF: C. Stanley Johnson, named general manager of its color and chemicals division in Hawthorne, N.J. by Interchemical Corporation. Mr. Johnson succeeds William N. Davies who has joined Interchemical's headquarters staff in New York as sales vice-president.

Cyanamid Gets ICI Permit For Methyl Methacrylate

American Cyanamid Company has been licensed by Imperial Chemical Industries, Ltd., of Great Britain, to manufacture methyl methacrylate, an acrylic thermoplastic.

The material will be produced at a unit to be added to the Fortier plant near New Orleans, La., where Cyanamid now produces acrylonitrile.

Hydrocyanic acid, a raw material for acrylonitrile, is also a principal starting material for methyl methacrylate, a spokesman for Cyanamid points out.

He adds that the new product is a logical expansion of the company's activities in the plastics fields and fits in with its present marketing organization.

Cyanamid's plans also calls for the construction of additional production units to convert the methyl methacrylate monomer into thermoplastic molding powder cast sheets.

Fumaric Acid Gleam Latest in Heyden's Eye

Heyden Newport Chemical Corporation, whose new maleic anhydride plant is nearing start-up time at Fords, N. J., has decided to go one step farther and build an 8-million-pound-a-year fumaric acid unit at Garfield, N. J.

The fumaric unit, using a Scientific Design Company process, is slated to start up in the second quarter of this year, just a few months after the 24-million-pound maleic plant comes on stream.

Heyden Newport has placed two new plants in operation since November 1960

—Continued on page 38

Wyandotte Is Operating At Its First Eastern Plant

After operating seventy years in Michigan, Wyandotte Chemicals Corporation has opened its first eastern plant. Located between New York and Philadelphia, the company's Washington, N. J., facility went on stream as the new year began.

The facility will employ about twenty persons to make Wyandotte's line of polyether products for expanding markets in the east.

Lloyd Fisher is manager and Burnett Eddy, jr., assistant manager of the new plant.

Depreciation Tax Putting Up Hopes For Relief Soon

Chemical producers and other manufacturers are looking for congress to prescribe extensive revisions in the depreciation provisions of the federal tax laws. The hope: aid to chemical firms now faced with excessive tax burdens brought on by rapid obsolescence of capital equipment.

Final touches are now being placed on a report by the Treasury Department for submission to congress in about thirty days. This will point the way to changes in the law that will encourage the chemical industry, among others, to reinvest in new equipment without extensive losses in revenues to the federal government.

The report is based on a survey of approximately 10,000 large and small businesses, which was made last summer by the Treasury Department in cooperation with the Small Business Administration.

More Freedom Sought by Firms

Preliminary results of the study, made public last week by the department, show that a majority of the firms in both size groups would like more freedom in determining the "useful" lives of capital equipment for tax purposes.

A big majority in both groups also is willing to pay higher taxes on incomes from sale of the depreciable assets in exchange for greater freedom in determining the "useful" life of the equipment.

Under the existing law, income received from the sale of a depreciable asset is taxed as a capital gain at the rate of 25 percent. Responses to the Treasury's survey indicated that most firms will be willing to tax this income at the regular corporate rate of 52 percent if the depreciation provisions are liberalized.

This would be in line with a proposal made to congress last year by President Eisenhower. It was laid aside by the house ways and means committee, however, in favor of the survey just completed by the Treasury, of the entire depreciation problem.

The Treasury reported that about 63 percent of the large corporations and 42 percent of the smaller firms consider present depreciation allowances unsatisfactory. Those in both groups who regard present allowances as unsatisfactory were in general accord on the causes of the inadequacy.

More than 60 percent of the firms attributed what they considered to be an inadequacy to the "excessively long" use-

—Continued on page 56

Molasses Pact Unaffected By Cuba Diplomatic Break

Though the US has broken its diplomatic ties with Fidel Castro, the five-year molasses pact between Publicker Industries, Inc., and the Cuban government is unlikely to be affected.

So an OPD check of sources at the Department of State and at the Philadelphia company reveals. A Publicker spokesman points out that the pact still has another four years to run and, so far, Cuba has not reneged.

Last year, Publicker brought in some 100 million gallons of Cuban blackstrap molasses at 7 cents a gallon to feed its alcohol fermentation operation. What it is now paying, the company refuses to say.

Elsewhere in the trade, there are reports of molasses hoarding. This reportedly is based on a general fear that Castro may shut off Cuban supplies this year.

Mobil, Chinese Company Slate Joint Urea Facility

A major urea facility has been slated for construction on Taiwan. Mobil Chemical Company, a division of Socony Mobil Oil Company, would operate the facility in partnership with Chinese Petroleum Corporation through a jointly-held Taiwanese firm.

A 100-million-pound-a-year unit, the project would represent the largest single foreign investment on Taiwan. A final decision to proceed, however, is subject to approval by the directors of both companies and ratification by the Republic of China.

Benzene Scramble: Humble, Signal, Monsanto Buy In

The magic word in the petrochemicals industry continues to be: benzene. Humble Oil & Refining Company is the latest to enter the scramble for higher capacity. Its Enjay Chemical Company division says Humble will boost its total benzene capacity to 80 million gallons a year by 1962.

Enjay's disclosure comes on the heels of a report by Monsanto Chemical Company, saying Monsanto has decided to start making benzene—to the tune of 42 million gallons a year (see separate story on page 5).

And Monsanto's announcement closely follows Signal Oil & Gas Company's start-up of a shiny new "Hydeal" benzene unit in Houston, Tex., adding up to 12 million gallons annually to its capacity.

Humble will do its expanding at Baytown, Tex. Current capacity there is about 30 million gallons a year. New potential is expected to reach 55 million gallons.

At the same time, toluene capacity will be boosted to 55 million gallons a year at Baytown from its present estimated level of 30 million gallons. Humble also produces benzene at Baton Rouge, La., in a 30-million-gallon-a-year plant.

Enjay's announcement about the Baytown expansion brings to more than 275 million gallons the total of announced expassions by fifteen companies—due on stream shortly, by the middle of this year, by 1962, or proposed.

Current petroleum benzene capacity is estimated at somewhere around 500 million gallons annually. By 1962, if everyone does what he says he's going to do, petro-benzene potential will reach the

—Continued on page 38

Plastics Outlook: More Steam, But Not Up to 1959's Pressure

Growth of the plastics business, after slowing down somewhat in 1960, will pick up steam again in 1961 although in most cases the gains will not match the sparkling performance of 1959. Polyethylene, for instance, which increased its tonnage by a respectable 130 million pounds last year, should gain a healthy 200 million in '61. But even if it does better than this, prospects for equaling the 1959 jump of 330 million pounds are rated slim. Such at least is the plastics outlook as weighed in a forecast and review by R. K. Turner, president of Union Carbide Plastics Company, New York-based division of Union Carbide Corporation.

Many of the "mature" resins failed to share in 1960's modest gains, Mr. Turner points out. A resin such as phenolic, now in commerce for fifty years, has reached maturity, he explains:

General Economy a Big Factor

"Many of its applications are tied to production of durable goods and capital items." Any overall downturn in the economy is bound to affect it, and as a corollary, substantial growth in excess of the general economy is unlikely.

Thus, phenolic industry production, estimated at 570 million pounds for 1960, was down 55 million pounds from 1951. Unless an early upturn in the general economy takes place, a slight further decrease to 560 million pounds may be expected in 1961, according to the Carbide executive.

"Despite the poor short-term prospects for phenolic, we have complete confidence that it will long remain the resin 'too good' to be outmoded," Mr. Turner adds.

An increase of 200 million pounds in polyethylene output would carry the industry's total tonnage to 1,525 million pounds. Mr. Turner feels that moving this production will require a good deal of research and development work.

Disputing the view that a plateau has been reached in low-density polyethylene consumption, Mr. Turner cites such growing outlets as automatic over-wrapping and packaging of fresh produce. Superior protection, increased sales appeal and

—*Continued on page 55*

Fertilizer Companies In Arizona Combine

Southwestern Agrochemical Corporation, Chandler, Ariz., has absorbed Kerley Chemical Corporation, also of Arizona.

Officials of Southwestern Agrochemical say the company is the only basic manufacturer of fertilizers in Arizona. Kerley had been a manufacturer of insecticides and ammonium polysulfide at its plant at Kyrene, Ariz. It also was a distributor of ammonia and other fertilizers throughout central Arizona.

Potash Deliveries Dip; 3rd Period Is Slowest

Potash deliveries for agricultural purposes in continental United States, Canada, Cuba, Puerto Rico and Hawaii by the eight principal American producers and also the importers during the first nine months of last year were less than for the same period in 1959.

According to the American Potash Institute, these deliveries totaled 2,810,762 tons of salts containing an equivalent of 1,643,384 tons of K_2O. This was a decrease of just under 1 percent in salts and K_2O under 1959 deliveries.

Continental US took 1,532,685 tons of K_2O; Canada, 62,323 tons; Cuba, 15,217 tons; Puerto Rico, 16,952 tons, and Hawaii, 16,207 tons of K_2O. These figures include imports of 150,697 tons of K_2O for only the first six months of the year.

Exports to other countries were 310,649 tons of K_2O. Deliveries of potash for non-agricultural purposes amounted to 116,323

—*Continued on page 34*

Propargyl Alcohol—75%: Brand New Antara Grade

A new grade of propargyl alcohol, which is a corrosion inhibitor for mineral acids, is now available from Antara Chemicals, a division of General Aniline & Film Corporation, New York.

This product, known as propargyl alcohol—75 percent solution, is used with hydrochloric and sulfuric acids to prevent hydrocarbon embrittlement and to inhibit corrosion of metals. It is available in commercial quantities. The price schedule starts at 43 cents a pound, bulk, f.o.b., Calvert City, Ky.

DuPont's 'Teflon' Resins Are Reduced for 11th Time

Prices of "Teflon" fluorocarbon resins were reduced last week by E. I. duPont de Nemours & Co., Wilmington, Del., for the eleventh time since "Teflon" was introduced in 1944.

The latest reductions range from 35 cents to $2 a pound. The price of the basic resin, which once sold for $18 a pound, now stands at $3.25 a pound.

The new prices in truckload quantities are as follows: "Teflon" 1 and 5 molding powders, $3.25 a pound; "Teflon" 7, $3.75; "Teflon" 30 and 30B dispersion, $4.30; "Teflon" 6 and 6C extrusion composition, $5.05.

"Teflon" 100 FEP-fluorocarbon resin, a new, melt processible material having all the properties of TFE resin except extreme high-service temperature, was reduced $2 a pound to $9.60 in truckload lots.

The Week's Price Changes

Alkali Blues, Ammonium Nitrate, Sodium Phosphate Advanced. Cocoa Butter, Corn Oil, Trimethylolpropane, Zinc Reduced.

Prices Advanced

Alkali blues, flushed, 3c. per lb. (p. 54).
Dispersed, 7c. per lb. (p. 54).
Ammonium nitrate, $3 per ton (p. 43).
Bisphenol-a, 1c. per lb. (p. 40).
Calcium lithol toners, 5c. per lb. (p. 54).
2-Chloro-4-nitroaniline, 9c.-14c. per lb. (p. 40).
Coconut oil, crude, Pac. coast, ½c. per lb. (p. 49).
Cottonseed oil, crude, ⅝c. per lb. (p. 49).
Refd., ⅝c. per lb. (p. 49).
Green B pigment, 5c. per lb. (p. 54).
Lake C, red, 5c. per lb. (p. 54).
Lard, cash, 2/5c. per lb. (p. 49).
Linseed meal, $1 per ton (p. 49).
Methyl violet (PMA), 15c. per lb. (p. 54).
Nitrogen solutions, manufacturing type, $6 per ton (p. 43).
Nitrogenous sewage sludge, 15c. per unit NH_3 (p. 43).
Peanut meal, 50c. per ton (p. 49).
Peanut oil, ¼c. per lb. (p. 49).
Phthalate esters, ½c. to ¾c. per lb. (p. 54).
Phthalic anhydride, 1c. per lb. (p. 40).
Potassium muriate, 2½c. per unit K_2O (p. 43).
Potassium sulfate, 3c. per unit K_2O (p. 43).
Sodium phosphate, tech. and food grades, 15c. per 100-lbs. (p. 32).
Soybean meal, 50c. per ton (p. 49).
Soybean oil, ¼c.-⅜c. per lb. (p. 49).
Styrene monomer, 1/20c. per lb. (p. 40).
Toluene, coaltar, ½c. per gal. (p. 40).

Prices Reduced

Cocoa butter, 3c. per lb. (p. 49).
Coconut oil fatty acid, 2c. per lb. (p. 49).
Corn oil, crude, ½c. per lb. (p. 49).
Refd., ½c. per lb. (p. 49).
Methylene chloride, 1c. per lb. (p. 36).
Trimethylolpropane, 4½c. per lb. (p. 36).
Zinc metal, ½c. per lb. (p. 54).

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

Jan. 6, 1961	Dec. 30, 1960	Jan. 8, 1960
109.70	108.50	111.61

Chemical $ for 'Lending Money'

Instead of "spending money" it was "lending money" that the chemical industry put up in a sharp change of dollar habits last year. So say a couple of "big lenders." One of them is Wheels, Inc., a Chicago vehicle leasing agency, which provided the chemical business with more autos and trucks than ever before. The other is Nationwide Leasing Company, also of Chicago, which reported that it furnished chemical firms with a great increase in production and office equipment during the year just past.

Major leasing companies offered new lower cost plans during the year, boosting the value of auto and truck fleets leased by the chemical process industries to $288.4 million last year.

Wheels, Inc., said firms in the chemical industries leased 14,900 trucks last year, or 27 percent more than in 1959. Auto fleets totaled 73,900 cars, or an increase of 12 percent.

Nationwide Leasing reported that long-term leasing of production and office equipment by chemical process industries spurted ahead, with the value of equipment put at $131.9 million, or a year's gain of 43 percent.

Wheels, Inc., said that the chemical industry leased about $33 million more in rolling stock last year. The biggest gains were registered by the truck sector, ac-

—*Continued on page 47*

RESEARCH DIRECTOR: Ernest T. Handley, appointed managing director of research for the Firestone Tire & Rubber Company, Akron, Ohio.

Methylene Chloride Prices Are Brought Down By Dow

In a move aimed at opening up new development applications, Dow Chemical Company, Midland, Mich., has cut prices on methylene chloride 1 cent a pound across-the-board.

The material is currently used widely in non-flammable paint removers, in the production of photographic film, in missile cleaning and as a component in aerosol propellant systems.

The new delivered prices are: tankcars, 11¼ cents a pound; tank transport, 11½ cents a pound; truckloads and carlots, 12½ cents a pound, and less-than-truckloads, 15¾ cents a pound.

Monsanto Cuts 'TPSA'

Monsanto Chemical Company has posted a 33 percent reduction in the price of tretraprotenylsuccinic anhydride, an intermediate marketed by the company as "TPSA." Under the new schedule, prices are 50 cents a pound for carload or truckload drumlots, 52 cents for less than tonlots, and 75 cents for less than drum quantities. All are f.o.b. St. Louis, Mo., freight equalized.

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OIL, PAINT AND DRUG REPORTER, Vol. 179, No. 2, January 9, 1961. Published weekly on Monday by Schnell Publishing Company, Inc., 30 Church Street, New York 7, N. Y., U.S.A. Second-Class postage paid at New York, N. Y. Single copy price: 50 cents. Subscription prices:—United States and Possessions, $5 a year; Canada and Newfoundland, 7; other countries, $12. Copyright, 1961, Schnell Publishing Company, Inc.

Where Tetrahydrophthalic?

Is there a growing market for tetrahydrophthalic anhydride? Petro-Tex Chemical Corporation evidently thinks so, for it intends to put up a multi-million-pound plant at Houston, Tex., to make the chemical process material.

Used with phthalic anhydride to upgrade the alkyd and polyester resins produced with that intermediate, tetrahydrophthalic reportedly gives the resins better initial color, better color retention and better adhesion.

Were it not for price, tetrahydrophthalic might become a complete replacement for phthalic. But, with tetrahydrophthalic selling at 39 cents a pound in carlots versus phthalic at 19½ cents (for tankcar quantities), economically, it's no contest.

The market for tetrahydrophthalic anhydride today is pegged at around 1 million pounds a year, and Allied Chemical Corporation's National Aniline Division has all of that.

What Petro-Tex apparently sees is a much wider market for the material—say, in the range of 5 million to 6 million pounds a year—if the price can be pushed down to around the 25-cent level.

Tetrahydrophthalic anhydride is particularly alluring to Petro-Tex for two reasons:

- The company has a basic raw material supply position on both of the starting materials (butadiene and maleic anhydride). Tetrahydrophthalic is produced by a Diels-Alder reaction of butadiene and maleic.
- The material will give Petro-Tex and its projected 30-million-pound maleic plant an important outlet and, therefore, a not inconsiderable edge in the looming marketing battle in maleic anhydride.

Besides resins, tetrahydrophthalic also has applications in plasticizers, insecticides and fungicides. Since the Diels-Adler reaction is almost quantitative, Petro-Tex is confident that tetrahydrophthalic will be competitive with other commonly used dibasic acids and anhydrides.

Monsanto Hydrocarbons to Monsanto; Perhaps a Pattern Is Taking Shape

In a move that could set a pattern of the '60's for cost-conscious chemical makers, Monsanto Chemical Company has disclosed plans to construct a major hydrocarbon raw materials complex on a just-purchased 3,000-acre site at Chocolate Bayou, Tex. The facility will include a 500-million-pound ethylene plant, reportedly the world's largest; a 42-million-pound benzene unit; a 50-million-pound petroleum naphthalene plant, plus units for propylene, cumene, phenol, acetone and ethyl benzene. Monsanto, a large consumer of hydrocarbons, will use a major part of the output to supply its chemical processing divisions.

Slated for start-up in 1962, the plant is being tailored to meet Monsanto's present and foreseeable raw materials needs, a spokesman for the company says.

Phenol Unit Finds a Home

A 50-million-pound phenol unit, previously announced by the company but with the site undisclosed, will also be located at the Chocolate Bayou facility. Addition of this unit will boost Monsanto's total annual phenol capacity to "well over 200 million pounds."

The unit will use the cumene-oxidation process, converting a portion of its ethylene to oxide in order to supply the growing demand for non-ionic, low-sudsing detergents.

While production of ethylene and benzene at the facility will not meet Monsanto's full requirements, it will "guaran-

—*Continued on page 53*

PRESIDENTIAL AIDE: John A. Rodda, appointed assistant to the president of Food Machinery & Chemical Corporation in San Jose, Calif.

Vitro Corp. Buys All Of Vitro Chemical Co.

Vitro Corporation of America now owns all of Vitro Chemical Company. The New York-based parent company has just purchased the entire minority interest in its chemical subsidiary which had been owned by Pechiney, a French industrial chemical leader.

In addition to purchasing all stock and notes held by Pechiney, Vitro has entered

—*Continued on page 42*

Formaldehyde Plant Set By Firm in Netherlands

The Netherlands' largest chemical maker, the government-owned Staatsmijnen (State Mines), of Limburg, has slated construction of a 25,000-ton-a-year formaldehyde plant. The unit will turn out 40 percent formaldehyde solutions at a site in Beek. Construction is to get under way soon.

The plant's projected capacity, though now in excess of domestic consumption, has been chosen to cover anticipated expansion of the Netherlands market. This will be the country's first formaldehyde unit.

Staatsmijnen already operates facilities for caprolactam, urea, polyethylene and other basic chemicals.

Chemical Industry Anticipating A Rash of Restrictive State Bills As 47 Legislatures Meet in '61

With all but three of the fifty states in the union due to call their legislatures into session this year, national organizations in the chemical industry are looking for a rash of restrictive measures to pop up all over the country. The tenor of advance reports from state capitals is anything but quieting to chemical producers, and legislative experts in the various industry associations are cautioning member companies to be on the alert to protect their interests.

The only three states not scheduled to meet in 1961 are Kentucky, Mississippi and Virginia. All the other state legislatures will convene at some time during the year—most of them within the next two weeks.

Sessions will run for periods of a few weeks to several months and will cover a wide area of chemical industry matters, ranging from air pollution control to product labeling and income taxes.

How MCA Keeps Abreast of Developments

Manufacturing Chemists' Association is planning to keep on top of developments through a private reporting service that maintains a constant watch on the activities of state law-making bodies.

The association is looking for the introduction of an increasing number of bills dealing with air pollution, food additives, precautionary labeling and transportation of dangerous articles.

In 1959—when nearly all the state legislatures were last in session—a record was established for the number of bills on these subjects, and MCA is convinced that nothing has happened since then to indicate that '61 will be any different.

As a result of all the emphasis in recent years on chemicals in foods, there appears to be no doubt that a number of bills will go into the state legislative hoppers for "little" food additives laws patterned after the federal statute.

As long as the bills follow the federal law, they are of little concern to the industry. It is when they seek to become more restrictive that they become a problem to the national chemical organizations.

In addition to legislation in this field, which is of major importance to the pesticide industry, the National Agricultural Chemicals Association expects the usual volume of bills for increasing assessments or fees for the registration of pesticides.

The association maintains a close watch on these bills because they quite often go beyond the model bill favored by the industry which is in force in some states,

—*Continued on page 48*

SNELL VICE-PRESIDENT: George T. Bayley, who has become a vice-president of Foster D. Snell, Inc., New York, in charge of its Calkin & Bayley Division—a new wholly-owned subsidiary stemming from the acquisition of Calkin & Bayley, Inc., by the Snell organization.

Argentine Gov't Okays Major Chemical Projects

Three recently-announced chemical ventures, totaling $90 million, have just been approved by the Argentine government. The projects are:

- A $70 million petrochemical complex to produce mainly synthetic rubber. The project will be handled by a group of companies headed by Fish International Corporation, of Houston, Tex. Others participating are Cities Service Company, Continental Oil Company, United States Rubber Company and Witco Chemical Company.
- A $16 million polyethylene plant to be built by Imperial Chemical Industries, Ltd., of England.
- A $3.9 million carbon black plant to be built by Cabot Corporatin, Boston, Mass.

Drug Counterfeiting Seen

The Kefauver monoply investigating committee of the senate has uncovered "substantial" evidence of counterfeiting of drugs and is considering holding public hearings on the subject at a later date. No final decision on this has been reached as yet, however, according to a disclosure made late last week.

Cary Chemical Finds Vinyl Plastics a Lure

Cary Chemicals, Inc., plans to make for itself place as one of the largest fully integrated producers of vinyl plastics. And, toward that end, the East Brunswick, N. J., company has just revealed plans for the expansion of its vinyl polymer compounding and calendering facilities.

The plans were disclosed in connection with a joint announcement by Cary and Tennessee Gas Transmission Company, Houston, Tex., which stated that the companies have entered into a long-term production and marketing association. Cary said that while it will continue as an independent, publicly-owned corporation, Tennessee Gas will have a substantial investment.

J. J. King, senior vice-president in charge of the project for Tennessee Gas,

—*Continued on page 35*

Textron, Young Drug Firm, Acquires Tilden, the Oldest

Textron Pharmaceuticals, Inc., Providence, R.I., a five-month-old subsidiary of Textron, Inc., has acquired Tilden Company, reportedly the oldest ethical drug manufacturing firm in America.

The 137-year-old firm reportedly perfected the fluid extract process, was the first to sugar coat pills, printed the first US *Materia Medica* (a compilation and description of the best-known remedies of the day), and developed the first gelatin-coated pill.

Textron plans to make a substantial investment in Tilden, directed towards the introduction of new products and the expansion of its distribution system.

Linseed Oil: There Is a New Paint Use On the Way

Department of Agriculture has a new use for linseed oil. Government chemists in Peoria, Ill., are trying to use it to make quick-drying, oil-in-water emulsion paints for testing on exterior surfaces.

Studies by USDA's Agricultural Research Service show that many of the test paints have desirable characteristics comparable to those of resin-emulsion and conventional linseed-oil exterior paints.

Still under development, the new paints can be diluted with water, but resist water within fifteen minutes after application and dry sufficiently in thirty minutes to permit application of another coat. Water easily washes these paints from brushes and rollers used to apply them.

Tests so far have shown that the paints adhere well to chalking surfaces, have good covering qualities, pour and flow easily and do not readily form lap marks. The researchers found that some of the paints (containing zinc oxide) remained stable on the shelf more than forty-six weeks. According to USDA, it will take considerable time and testing to establish the merits of these paints and to make them suitable for consumer use.

Zinc oxide is used in exterior oil paints as a pigment, to control chalking and to resist damage by mildew and ultraviolet light. But zinc oxide tends to make oil-in-water emulsions unstable. It can, for example, make paints become too thick to use or cause them to change into water-in-oil emulsions that cannot be diluted with water.

The instability of emulsion paints containing practical amounts of zinc oxide has been one of the greatest limitations on their expanded use. Progress on this

—*Continued on page 38*

Republic, Reilly, Char: They're All Merged Now

Republic Creosoting Company, Indianapolis, Ind., has merged with its wholly - owned subsidiaries, Reilly Tar & Chemical Corporation and Char Products Company, with the merged company to be know as Reilly Tar & Chemical Corporation.

The wood preservation operations will be handled as a separate unit under the name Republic Creosoting Company, a division of Reilly Tar.

here's where
your product
sparkles

and here's where
it shines

with soluble

fmc®
TKPP

...double-action salesmaker for liquid detergents, all purpose cleaners and dishwashing compounds!

High solubility of FMC tetrapotassium pyrophosphate now helps you pack double sales-punch into your liquid detergent products.

Being low in insolubles and orthophosphates, FMC TKPP produces clear solutions, free of turbidity and high in detergency, emulsifying efficiency and water softening action. That means your product looks good on the shelf, looks even better in action!

For convenience and economy, you can get FMC TKPP in granular or powder form (bags, drums or bulk) or as a 60% solution. It's available in mixed truckload or carload shipments with our other phosphates and with CDB® Chlorinated Dry Bleaches.

If you don't have current FMC TKPP specs, it will pay you to call our nearest office and ask for them. We'll be glad to supply samples and quote.

SODIUM PHOSPHATES Hexaphos® Sodaphos® (Brands of Glassy Phosphate) Disodium Phosphate Monosodium Phosphate Sodium Acid Pyrophosphate Sodium Tripolyphosphate Tetrasodium Pyrophosphate Anhydrous Tetrasodium Pyrophosphate Crystals Trisodium Phosphate Anhydrous Trisodium Phosphate Hemihydrate Trisodium Phosphate Monohydrate
POTASSIUM PHOSPHATES Dipotassium Phosphate Monopotassium Phosphate Potassium Tripolyphosphate Tetrapotassium Pyrophosphate Tripotassium Phosphate
PHOSPHORIC ACID 75% and 80% Food and Commercial Grades; 85% N.F.

Putting Ideas to Work

FOOD MACHINERY AND CHEMICAL CORPORATION
Mineral Products Division
General Sales Offices:
161 E. 42nd STREET, NEW YORK 17

SALES DEVELOPMENT MANAGER: L. H. Johnstone, appointed manager of sales development for its rubber chemicals division by Phillips Chemical Company, Bartlesville, Okla.

Mineral Output for '60 Second Best Recorded

Mineral output reached an estimated $17.8 billion in value last year, about 4 percent above 1959 and the second highest on record. The peak was in 1957 when production reached a value of 18.1 billion.

In reporting the overall totals, the Bureau of Mines says that metals, affected in 1959 by prolonged strikes at many mines, were up an estimated 28 percent in 1960 while non-metals gained only 2 percent. The increased value of fuels more than offset the drop in value of other non-metals, it is stated.

Those metals whose output was affected by strikes in the last half of 1959 and the first quarter of 1960—copper, iron, vanadium and tungsten—all reported increases ranging from 30 to 40 percent, thus counterbalancing declines in lead, zinc, silver, manganese, rare earths, and thorium.

Uranium output increased from $141 million to $156 million in 1960 and small increases were registered by gold and platinum.

Attainments by fuels were mixed, with value increases reported for natural gas, liquids, helium, peat and petroleum.

A slackening demand for materials of construction—cement, clays, gypsum, and stone-mainly in residential building, was

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Kleen-Stik to Become Nat'l Starch Subsidiary

The board of directors of Kleen-Stik Products, Inc., has agreed, subject to the approval of its stockholders, to become a wholly-owned subsidiary of National Starch & Chemical Corporation, N. Y., in exchange for shares of National Starch common stock.

Kleen-Stik, which makes a line of pressure-sensitive tapes, would operate as a separate corporation under its present management, and headquarters would continue at the present location in Chicago.

OPD Reports From Europe

German Chemical Producers See No Reason for Pessimism Over 1961 Business Outlook

West German chemical producers see no reason for pessimism about the business prospects for 1961, but it's generally admitted that the rate of growth this year will fall below the 13 percent of 1960 and the 14 percent of '59. Preliminary figures from the Verbandes der Chemischen Industries (Chemical Industry Association) show total 1960 chemicals sales of about $5.5 billion, against nearly $4.9 billion in 1959. More complete figures indicate that sales for the first ten months of 1960 were $4.57 billion.

Petrochemicals in general, industrial organic chemicals and plastics in particular led the growth parade. Association figures show plastics sales up 22 percent over 1959 in the first ten months.

Chemical Exports Show Gain

Exports for the year just ended are estimated to have risen to $1.48 billion from $1.3 billion, and 1960 export shipments accounted for 26 percent of total sales. Industrial chemicals, plastics and pharmaceuticals were the major export categories—with drugs up 21 percent over 1959 in the first three quarters of the year.

A big disappointment in the export field was nitrogenous fertilizers where shipments dropped almost 15 percent below 1959 figures, according to the association. Growth of world production capacity, especially in countries which were once customers, and a "buyer's market" in prices are the reasons cited for the decline.

These overall sales and export figures for the whole year indicate that some leveling out of the growth rate has already started taking place since the first half of 1960.

For the first six months, official figures showed exports up 19 percent to $720 million, against an increase of 13.7 percent for the whole year. Sales total in the first half was $2.7 billion, up 17 percent over the first half of 1959.

Since the industry has been operating at close to capacity since the middle of 1959, it isn't surprising that the growth rate is slowing down though actual figures continue to rise.

International competition considerably sharpened last year, the association re-

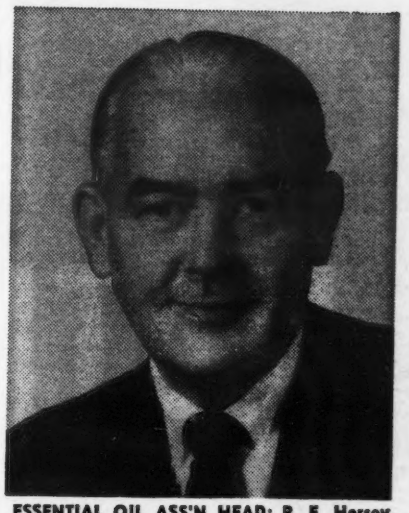
—Continued on page 56

Sodium Hydrosulfite Charge Rejected by Treasury Dep't

Treasury Department has turned down a complaint that sodium hydrosulfite from France is being sold in the United States at less than "fair value" in violation of the anti-dumping act.

The department said that while sales of the material had been made in the US at less than the home market price, there have been no importations since August, and the amount that had been brought in and sold at the lesser price was insignificant.

It was added that "the shipper has decided to discontinue sales to the United States as long as the price differential situation exists between the price at which the merchandise can be sold to importers in the United States and the home market price."



ESSENTIAL OIL ASS'N HEAD: R. E. Horsey, sales vice-president of Givaudan-Delawanna, Inc., New York, who has been named to a second consecutive term as president of the Essential Oil Association.

Allied Labs Becomes Dow Chemical Division

Allied Laboratories, Ins., has became a part of Dow Chemical Company. Stockholders of Allied have voted to dissolve the firm as the final step in a plan under which Dow will acquire Allied's assets in exchange for Dow stock.

Under the plan, Dow common stock will be issued to Allied and the latter will distribute Dow stock to its stockholders on the basis of two-thirds of a share of Dow stock for each share of Allied.

A total of 799,674 shares of Allied common stock now owned by stockholders will be surrendered to Dow in exchange for Dow shares.

Allied will continue to operate under its present officers as a division of Dow.

SOCMA to Hear Editor

Synthetic Organic Chemical Manufacturers Association has booked Kenneth Kramer, managing editor of *Business Week*, as featured speaker at its next monthly meeting, to be held tomorrow (January 10) at the Roosevelt hotel, New York. Mr. Kramer's topic is "The Business Outlook for 1961."

Essential Oils Set To Keep Strong In a Good Year

"Strengthening of prices . . ." "No over-production . . ." These are some words that essential oils people are expected to find particularly agreeable during the coming year. And they come from an authority, for they are contained in the annual report of R. E. Horsey, president of the Essential Oil Association.

In a report prepared for delivery Friday night (January 6) in New York, Mr. Horsey had this to say about the year ahead:

"To forecast the markets for 1961, present trends would indicate a steady and probable strengthening of prices. As far as can be determined, there is no over-production of essential oils in relation to consumption.

Overall European Purchases Top US

"It should also be noted that European recovery has been so complete that while the US as a single market remains the largest purchaser of essential oils, overall European purchases are larger and have a greater impact on market prices."

Then, touching on the price situation, Mr. Horsey's report went on:

"Regarding the price situation on essential oils, most of these remained steady during the past year with the exception of the important oils of citronella, lemongrass and sandalwood.

"The strong market on these oils has given greater impetus to the production of synthetic aromatics, which eventually may make the industry independent of natural oils that continually fluctuate in price and supply.

"Oil of geranium Reunion rose to a high in mid-year due to cyclone damage, but has been receding in the past month.

"It is too early to predict what effect recent government rulings on the use of safrol will have on the price of ocotea cymbarum. Oil of spearmint has remained steady in spite of the above-average crop in 1960."

Turning attention to the consumer area, the report then continued:

"Certainly there are many existing consumer products which could be upgraded with better flavors and fragrances. As for new products, they will have to be really new and different. Today's shopper is

—Continued on page 46

Chesebrough-Pond's Buys Connecticut Cosmetics Firm

Chesebrough - Pond's, Inc., has purchased for cash the world-wide interests of Northam Warren Corporation, a fifty-year-old cosmetics firm.

Northam Warren will be operated as a wholly-owned subsidiary of Chesebrough's. It will be headed by Northam Warren, jr., who has been elected president and chief executive officer of the new subsidiary and a vice-president of the parent company. He succeeds his father, who retired on December 31 as head of the Northam Warren enterprise.

Northam Warren's headquarters are in Stamford, Conn., and its three plants are located in that city, London and Montreal.

Association Meetings

American Chemical Society, national meeting, St. Louis, Mo., March 21-30.

American Coke & Coal Chemicals Institute, western regional meeting, Drake hotel, Chicago, February 9.

American Institute of Chemical Engineeds, annual meeting and petrochemical exposition, Municipal Auditorium, New Orleans, La., February 25-March 1.

American Pharmaceutical Association, annual convention, Chicago, April 23-28.

American Society for Testing Materials, committee week, Netherland Hilton hotel, Cincinnati, Ohio, January 30-February 3.

Association of American Soap & Glycerine Producers, annual meeting, Waldorf-Astoria hotel, New York, January 25-27.

Chemical Buyers Group of the National Association of Purchasing Agents, midwinter conference, Commodore hotel, New York, February 2.

Chemical Market Research Association, Shoreham hotel, Washington, D. C., February 15-17.

Commercial Chemical Development Association, annual meeting, Roosevelt hotel, New York, March 28-29; annual outing, Bedford Springs hotel, Bedford Springs, Pa., May 24-25.

Drug, Chemical & Allied Trades Association, annual banquet, Waldorf-Astoria hotel, New York, March 2.

Eastern Pest Control Operators' Conference, University of Massachusetts, Amherst, Mass., January 25-27.

Electrochemical Society, Claypool hotel, Indianapolis, Ind., April 30-May 4.

Flavoring Extract Manufacturers Association, annual meeting, Savoy-Hilton hotel, New York, May 14-17.

International Congress on Pure & Applied Chemistry, Montreal, Canada, August 6-12.

Oil Trades Association of New York, Waldorf-Astoria hotel, New York, January 17.

Pharmaceutical Manufacturers Association, central regional meeting, Edgewater Beach hotel, Chicago, February 13-15; western regional meeting, Ambassador hotel, Los Angeles, February 20-21; annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., April 30-May 3.

Plastics Exposition, sponsored by the Society of the Plastics Industry, Coliseum, New York, June 5-9.

Purdue Pest Control Operators' Conference, Purdue University, Lafayette, Ind., January 23-27.

Salesmen's Association of American Chemical Industry, annual induction meeting, Roosevelt hotel, New York, January 26.

Society of Chemical Industry, American section, Perkin medal dinner, Waldorf-Astoria hotel, New York, February 3.

Society of Plastics Engineers, annual technical conference, Shoreham and Park-Sheraton hotels, Washington, D. C., January 24-27.

Society of the Plastics Industry, reinforced plastics conference, Edgewater Beach hotel, Chicago, February 7-9; western section conference, del Coronado hotel, Coronado, Calif., April 20-21; national conference, Commodore hotel, New York, June 5-9.

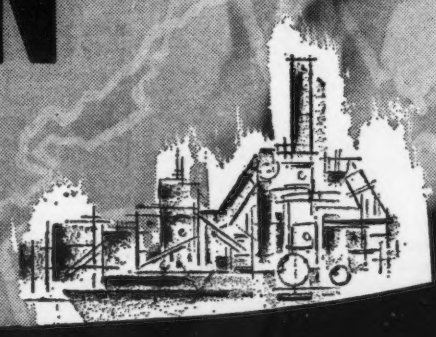
Southern Pest Control Operators' Conference, Heidelberg hotel, Jackson, Miss., January 16-17.

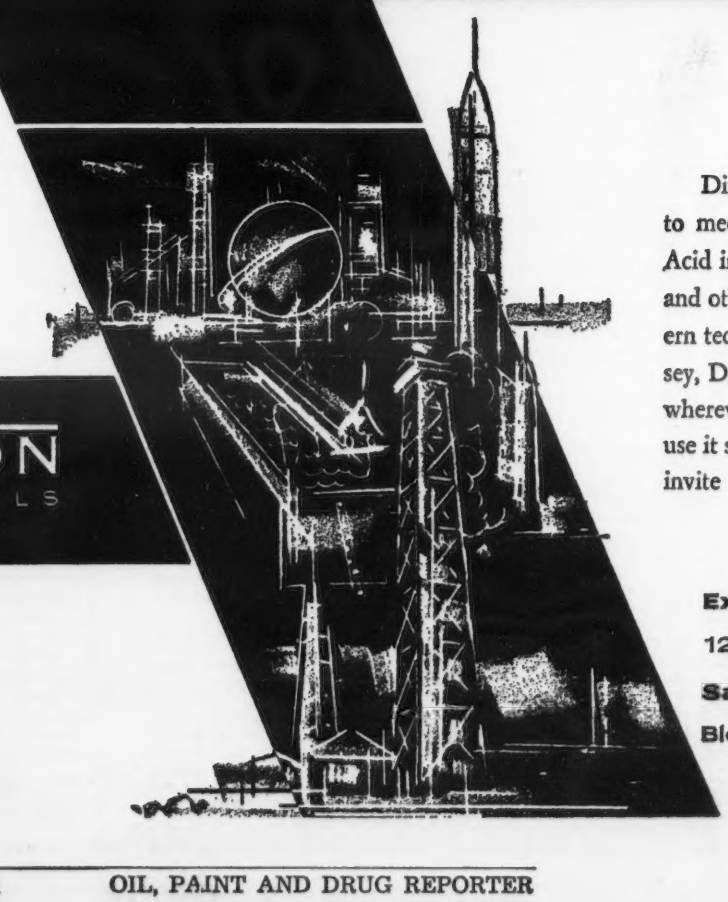
Synthetic Organic Chemical Manufacturers Association, monthly luncheon meeting, Roosevelt hotel, New York, January 10.

Technical Association of the Pulp & Paper Industry, annual meeting Commodore hotel, New York, February 20-23.

Toilet Goods Association, annual convention, Waldorf-Astoria hotel, New York, May 9-11.

DIXON goes NATIONAL with HF





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CHEMICALS AND RELATED MATERIALS

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Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, January 6 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

A

Abies siberica oil, cns. ..... lb. 1.90 - 2.40
Acacia (see Arabic gum).
Acetaldehyde 99%, dms., c.l., works, lb. .12 - —
dms., l.c.l., works ..... lb. .13½ - —
tanks, works ..... lb. .10 - —
Acetaldol (see Aldol).
Acetanilide, tech., flaked, bbls., bgs., c.l., frt. alld lb. .32½ - —
bbls., bgs., ton lots, frt. alld, lb. .33½ - —
bbls., bgs., smaller lots, frt. alld lb. .38½ - —
USP bbls. 225-lb dms., any quantity lb. .90 - —
100-lb. dms., any quantity lb. .92 - —
Acetic acid, coml., or redist., 28%, bbls 100 lbs. 4.80 - —
56%, bbls. ..... 100 lbs 8.25 - —
70%, bbls. ..... 100 lbs. 9.95 - —
80%, bbls. ..... 100 lbs. 10.45 - —
Acetic acid glacial, syn., CP, dms., dlvd .. 100 lbs. 15.00 -20.25
tech., dms., c.l., dlvd .... 100 lbs. 13.75 —
dms., l.c.l., dlvd. ..... 100 lbs. 15.25 —
tanks, dlvd. ..... 100 lbs. 10.00 —
USP, dms., dlvd. ..... 100 lbs. 13.00 -18.25
Acetic anhydride, aluminum ret. dms., c.l., dlvd. E lb. .16½ - —
aluminum ret. dms., l.c.l., dlvd. E. lb. .18 - —
tanks, dlvd. E lb. .14 - —
Acetoacetanilide, fib. dms., c.l., dlvd lb. .80 - —
fib. dms., l.c.l., dlvd lb. .81 - —
Acetoacet-o-chloroanilide, fib. dms., c.l., dlvd lb. 1.35 - —
fib. dms., l.c.l., dlvd lb. 1.36 - —
Acetoacet-o-toluidide, fib. dms., c.l., dlvd lb. .82 - —
fib. dms., l.c.l, dlvd ..... lb. .83 - —
Acetone, CP, dms., c.l., dlvd. lb. .19½ - —
dms., l.c.l., dlvd ..... lb. .12 - —
tanks, dlvd. ..... lb. .08 - —
Acetonitrile, dms., c.l., t.l., dlvd lb. .35 - —
dms., l.c.l., dlvd ..... lb. .36½ - .37
tanks, dlvd. ..... lb. .32 - —
Acetophenetidin, USP, 200-lb. dms., 1,000 lbs., frt. alld lb. 1.20 - —
100-lb. dms., 1,000 lbs., frt. alld. lb. 1.22 - —
Acetophenone, cns., dms. ..... lb. .42 1.30
Tech., dms., c.l., works ..... lb. .42 - —
dms., l.c.l., works ..... lb. .47¾ - —
tanks, works ..... lb. .45 - —
N-Acetyl-p-aminophenol, dms., t.l. (min. 23,000 lbs.), frt. adjusted lb. 1.30 - —
dms., 1,000-lb. lots, same basis lb. 1.40 - 1.45
dms., 100-lb. lots, same basis .... lb. 1.54 - 1.57
Acetylene black, imp., bgs., c.l., duty and freight extra lb. .20 - —
cs., l.c.l., ex whse ..... lb. .25½ - .31
Acetylene tetrabromide, 16-dm. lots or more, f.o.b. works lb. .53 - —
Acetylsalicylic acid, USP, cryst. (20, 40 mesh), powd. (80 mesh), 250-lb. dms., c.l., pt. of shipt lb. .58¼ - —
USP 10% starch granulation, 12-50 mesh, white, 250-lb. dms., c.l., same basis lb. .56¼ - —
(Pink and green granulations 5c. per lb. higher.)
Freight equald. shipt. identical quantity over standard routes, from N.Y., Phila., Midland, Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .35½ - —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .36½ - —
tanks, frt. alld. E. of Denver, lb. .33 - —
Acetyltriethyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .39½ - —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .40½ - —
tanks, frt. alld. E. of Denver ... lb. .37 - —

ACIDS
Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.

Aconite root, bls. ..... lb. .50 - .55
Acrolein, tech., dms., c.l., works lb. .36 - —
dms., l.c.l., works ..... lb. .36¾ - —
tanks, works ..... lb. .31 - —
Acrylamide, dms., t.l., f.o.b. works, lb. .58 - —
dms., l.t.l., same basis ..... lb. .60 - —
Acrylic acid, glacial, dms., c.l., t.l., dlvd lb. .42½ - —
dms., l.c.l., l.t.l., dlvd ..... lb. .43½ - —
tanks, dlvd. ..... lb. .40 - —
tech., esterification, tanks, frt. alld. lb. .38 - —
tech., polymerization, tanks, same basis lb. .38 - —
Acrylonitrile, dms., c.l., t.l., frt. equald lb. .26 - —
dms., l.c.l., l.t.l., frt. alld ..... lb. .27 - —
tanks, frt. equald ..... lb. .23 - —

Abies Siberica Oil—Ammonium Bicarbonate

Adeps lanae (see lanolin).
Adipic acid, bgs., c.l., dlvd. ..... lb. .32¼ - —
bgs., l.c.l., dlvd. ..... lb. .35 - —
Agar, USP, Kobe No. 1, strip, bls. lb. 2.75 - 3.00
powd., 30 mesh., fib. dms lb. 2.40 - —
dl-Alanine, dms., 100-lbs. or more, f.o.b. works lb. 5.25 - —
dms., 1-99 lbs., same basis lb. 10.00 - —
Aldol, 95%, dms., l.c.l., works lb. .28 - —
Aldrin, tech., fib. dms., c.l., t.l. dlvd lb. .99 - —
fib. dms., l.c.l., dlvd lb. 1.04 - —

ALCOHOLS
Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.

Aletris root, bgs lb. 1.50 1.75
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., dlvd. E. of Rockies lb. 2.45 - —
Alkali blue prices 1c. higher W of Rockies.

Allethrin, 90%, dms., frt. alld lb 28.80 -38.90
Soln., 20%, dms., 200-2,000 lb. lots, frt. alld lb. 6.50 6.55
2½% dms. frt. alld. ..... lb. .95 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l. dlvd. ..... lb. .32½ - —
dms., t.c.l., dlvd. ..... lb. .34 - —
tanks, dlvd. ..... lb. .30 - —
Allyl bromide 55-lb cbys 5,005 lbs or more, works lb. 1.50 - —
55-lb. cbys., 1,045 to 4,... lbs works lb. 1.53 - —
55-lb. cbys., 55 to 990 lbs works lb. 1.60 - —
Allyl chloride, dms., c.l., dlvd. lb. .17½ - —
dms., l.c.l., dlvd. ..... lb. .19 - —
tanks, dlvd ..... lb. .15 - —
Allyl isothiocyanate (see Mustard Oil, syn.).
Almond oil, artif., bitter (see Benzaldehyde)
Almond oil nat., bitter, f.p.a., bots. lb 2.75 3.45
NF, bots. ..... lb 3.00 3.30
sweet USP, cns., dms. ..... lb 70 1.30
Aloe, Cape, cs. ..... lb 35 .40
powd., cs ..... lb 60 .65
Curacao, kgs. ..... lb. .75 - —
powd., kgs ..... lb. .85 - —

Aloin, USP, bbls., dms., kgs ... lb 2.20 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpinol (see a-Terpinol).
Alphatocopherol (see a-Tocopherol).
Alum ammonium, gran., bgs., works 100 lbs 4.30 - —
Lump, dms., works ... 100 lbs 5.05 - —
Powd., dms., works ... 100 lbs 5.20 - —
USP, burnt., dms ..... lb .20 .21
hydrous, dms ..... lb .07¾ .08
Alum potassium, gran., bgs., works. 100 lbs 4.55 - —
Lump, dms., works .... 100 lbs 5.30 - —
Powd., dms., works..... 100 lbs 5.45 - —
USP, burnt., dms ..... lb .20 .21
USP, hydrous, dms ..... lb. .07¾ .08
Alum, potash-chrome, dms .... lb. .17 - —
Alumina, calcined, bgs., c.l., works lb. .0535 - —
bgs., l.c.l., works ..... lb. .056 - .0838
Aluminum acetate, basic soln., 24%, bbls. l.c.l. works lb. .19 - —
Aluminum chloride, coml., anhyd., dms., c.l., works, frt equald lb. .16 - —
dms., l.c.l., works lb. .16½ - —
cryst., dms., c.l. works 100 lbs. 21.00 - —
dms., l.c.l. works 100 lbs. 21.50 - —
Soln., 32° cbys., c.l., works lb. .0495 - —
cbys., l.c.l., works lb. .0570 - .1095
tanks, works 100 lbs. 3.95 - —
NF, gran., dms. works lb. .31 - .32
Aluminum fluoride, tech., anhyd., bgs., c.l., works lb. .16¼ - —
bgs., l.c.l., works lb. .17¼ - .18½
bulk, c.l. basis 80% lb. .14½ - —
Aluminum fluoride in fib. dms. 0.35c per lb. higher
Aluminum formate, basic soln., containers extra, c.l., works. 100 lbs. 11.00 - —
containers extra, l.c.l., works. 100 lbs. 11.50 - —
Aluminum hydrate, heavy, bgs., c.l., frt. equald lb. .0370 - —
bgs., 20,000-40,000 lb. lots, same basis lb. .0395 - —
bgs., 2,000-20,000 lb. lots, same basis lb. .0495 - —
bulk, c.l., same basis ..... lb. .0330 - —
Aluminum hydroxide, dried, USP XV, fib. dms., works lb. .82½ - —
fib. dms., contract, works lb. .79½ - —
Aluminum hydroxide, gel, pharmaceutical, 14-15% Al_2O_3, fib dms., works lb. .22 - —
9-9½% Al_2O_3, fib dms., works, lb. .19 - —
fib. dms., contract, works lb. .18 - —
Aluminum hydroxide, tech., powd., (see Aluminum hydrate).
Aluminum metal, 99½% + 30-lb ingots, 10,000-lb. lots, frt. alld lb. .2810 - —
50-lb. pigs, 10,000-lb. lots, frt alld. lb. .28 - —
Aluminum oxide, amorphous (see Alumina, calcined).
Aluminum paste, lining, extra-fine, dms lb. .71 - —
Standard grade, dms ..... lb. .48½ - —
Aluminum powder, lining, extra-fine, dms lb. 1.13 - —
Standard grade, dms lb. .83 - —
Aluminum paste and powder prices are f.o.b. shipping point. Add 1c per lb. for 100-lb. dm., 1½c. per lb. for 50-lb dm. 3c. per lb. for 10 lb can and 5c to 12c. per lb. for smaller containers. Deduct 1c per lb. for single shipment of 400 to 1,499 lbs. 2c for 1,500 to 4,999 lbs. 3c for 5,000 to 29,999 lbs and 4c. for 30,000 lbs. or more. Where destination is within the continental U. S., a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs or more
Aluminum resinate, precip., 2.1% Al, dms lb. .45 - —
Aluminum stearate, dibasic, ctns., c.l. lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Monobasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Tribasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Aluminum sulfate, coml., grd., bgs. c.l., works, frt. equald ton 41.00 - —
bulk, c.l., same basis ... ton 40.00 - —
lump, bgs., c.l., same basis ton 44.00 - —
iron-free, bgs., c.l., works, frt. equald 100 lbs. 3.80 - —
bgs., l.c.l., works, frt. equald. 100 lbs. 4.30 - 8.30
USP, gran., 400-lb. dm., works. lb. .30 - —
USP, powd., dms., works .... lb. .27 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots ..... oz. 6.50 -10.00
p-Aminoacetanilide, tech., paste, dnts., frt. alld lb. 1.57 - —
Aminoacetic acid, NF, bbls., frt. adjusted lb. 1.35 - 1.60
Aminoazotoluene base, bbls., 100% basis lb. 1.15 - 1.18
p-Aminobenzoic acid, tech., dry, dms., works lb. 1.72 - —
2-Amino-4-chlorophenol, tech., solid, dms., frt. alld. lb. 2.15 - 3.85
p-Aminodiphenylamine, tech., solid, dms., frt. alld lb. 3.00 - —
Aminoethyl ethanolamine, dms., c.l., dlvd. lb. .475 - —
dms., l.c.l., dlvd ..... lb. .49 - —
tanks, dlvd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld. lb. .44 - —
dms., l.c.l., frt. alld. ..... lb. .45 - —
tanks, frt. alld. ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots. lb. 2.05 - —
dms., smaller lots ..... lbs. 2.50 - —
p-Aminophenol, dms., frt. alld. lb. 1.15 - —
Aminophylline, USP, 100-lb. dm., frt. alld lb. 3.25 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald. E. of Rockies. ton 92.00 - —
refrigeration, tanks, works, frt. equald, E. of Rockies. ton 94.50 - —
Aqueous, 29-4%, tanks, works, anhyd. basis, E. of Rockies, ton 95.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal., gray, bgs., c.l., works, frt. equald. 100 lbs. 8.25 - —
bgs., l.c.l., same basis. 100 lbs. 8.65 -12.65
Ammoniac, sal., white (see Ammonium chloride, tech.)
Ammonium acetate, purif., dms lb. .40 - —
Ammonium benzoate, USP, 100-lb. dms., 1,000-lb. lots, works. lb. 1.90 - —
Ammonium biborate, gran., dms., c.l., works ton 325 - —
dms., ton lots, ex whse. 100 lbs. 20.40 - —
dms., smaller lots, ex whse. 100 lbs. 24.15 - —
Ammonium bicarbonate, dom., dms., c.l., works. 100 lbs. 7.00 - —
dms., l.c.l., works ..... 100 lbs. 9.00 - —

Abbreviations
Used in OPD Market Quotations

alld.	allowed	distr.	distributor	No.	number
amorph.	amorphous	djns.	demijohns	nom.	nominal
AMP	American melting point	dlvd.	delivered	o-	ortho
anhyd.	anhydrous	dms.	drums	ord.	ordinary
AOAC	Association of Official Agricultural Chemists	dom.	domestic	oz	ounce
		E.	east	p-	para
		e.p.	end point	Pac.	Pacific
a.p.a.	available phosphoric acid	equald.	equalized	pf.	proof
approx.	approximately	exp.	expressed	phos.	phosphate
artif.	artificial	Ext.	external	photo.	photographic
ASTM	American Society for Testing Materials	F.	fahrenheit	pkgs.	packages
		ferment.	fermentation	powd.	powdered
		f.f.a.	free fatty acid	precip.	precipitated
		f.f.c.	free from chlorine	prod.	producer
Atl.	Atlantic	fib.	fiber	pt.	point
Be.	Baume	f.o.b.	free on board	pulv.	pulverized
bbls.	barrels	f.p.a.	free of prussic acid	purif.	purified
bgs.	bags	frt.	freight	redist.	redistilled
bls.	bales	gal.	gallon	refd.	refined
botts.	bottles	gran.	granular	refy.	refinery
b.p.	boiling point	grd.	ground	reg.	regular
b.p.l.	bone phosphate of lime	i.&a.	iron and aluminum	resub.	resublimed
				ret.	returnable
b.r.	boiling range	i.b.p.	initial boiling point	SD	specially denatured
bxs.	boxes	imp.	imported	s.d.	single distilled
C.	centigrade	incl.	included	S E.	southeast
cbys.	carboys	indust.	industrial	sec.	secondary
CD	completely denatured	kgs.	kegs	secs.	seconds
		l-	laevo	sg.	specific gravity
c.i.f.	cost, insurance, freight	lacq.	lacquer	shipt.	shipment
		lb.	pound	soln.	solution
cks.	casks	l.c.l.	less carlots	s.u.	standard unit
c.l.	carlots	l.t.l.	less truckload	syn.	synthetic
cns.	cans	liq.	liquid	tanks.	railroad tankcars
coml.	commercial	mfrs.	manufacturers	tech.	technical
conc.	concentrated	m-	meta	tert-	tertiary
CP	chemically pure	m.a.p.	mixed aniline point	t.l.	truckloads
cps.	centipoises	min.	minimum	t.w.	tankwagons
cryst.	crystalline	m.p.	melting point	USP	U. S. Pharmacopoeia
cs.	cases	N-	nitrogen		
ctns.	cartons	n-	normal	vis.	viscosity
cyls.	cylinders	nat.	natural	VM&P	varnish makers & painters
d-	dextro	neut.	neutral		
dbl.	double	NF	National Formulary	W.	west
denat.	denatured			whse.	warehouse
dest-dist.	destructively—distilled	NNR	New and Nonofficial Remedies	w.w.	water-white
dl-	dextro-laevo				
dist.	distilled				

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Ammonium bichromate, dms., works lb .42 .43
Ammonium bifluoride dms., dlvd lb .2145 .2245
Ammonium bromide, NF gran., dms., c.l. t.l. frt equald lb 44 - —
dms. l.c.l., same basis lb 46 - —
Ammonium carbonate USP lump, dms. c.l lb .15½- —
Ammonium chloride, white tech., fine gran. bgs. c.l. works 100 lbs 6.00 —
bgs. l.c.l., works 100 lbs 8.00 8.45
USP gran. 250-lb dm lb 17¼ —
Ammonium citrate dibasic, 250-lb. dm f.o.b works lb 77 - —
Ammonium dichromate (see Ammonium bichromate)
Ammonium fluoride (see Ammonium bifluoride)
Ammonium gluconate tech., 200-lb. dm f.o.b works E lb. .45 - —
Ammonium hydroxide (see Ammonia aqeous)
Ammonium iodide NF, 25-lb. jar, f.o.b works lb 4.26 - —
Ammonium lauryl sulfate, dms., c.l., frt alld lb. 20½ —
dms. t.l.l. frt. alld lb 21½ —
tanks frt alld lb. 19½ —
Ammonium lignin sulfonate, bgs., c.l. works 100 lbs 3.25 —
bgs. l.c.l., works 100 lbs 3.40 3.65
Ammonium linoleate, 80%, dms., works lb. .50 .55
Ammonium molybdate, CP, cryst., 400 lb dms. 15,000-lbs works, lb 1.22 - —
400-lb dms. 2,000-lb contracts, works lb 1.23 - —
400-lb dms. works lb 1.24 - —
Ammonium nitrate, dom., fertilizer grade 33.5% N bgs. f o b works ton.67.00 - —
Ammonium nitrate, dom., with dolomite, 20.5% N, bgs., c.l., Hopewell, Va ton.48.00 - —
Imp., Canadian, 33.5% N eastern, bgs. c.l., ship't point frt. equaid to $3 ton base price ton.70.00 - —
Ammonium oxalate, tech., fine gran. 250-lb dm. f.o.b works E lb. .28½- —
Tech. powd. 200-lb dm., same basis lb. .28½- —
Ammonium pentaborate, gran., bgs., c.l. works ton.193.00 - —
bgs., ton lots, ex whse 100 lbs.14.23 —
bgs., smaller lots, ex whse 100 lbs.15.48 -17.48
Ammonium pentaborate powder $10 per ton higher in bags
Ammonium persulfate, tech., dms., 10-ton lots or more, works lb. .18 —
dms. smaller lots, works lb. .20 .23
Ammonium phosphate, comi., bgs., c.l., works, frt. equaid lb. .09¼ - —
bgs. l.c.l., same basis lb. .10 — —
Dibasic, NF, V, bbls., dms lb. .46 — —
Dibasic, tech. bgs., c.l., works, frt. alld lb. .09¼ — —
Ammonium silicofluoride, dms., works lb. .12¼ .13¾
Ammonium sulfamate, bgs. c.l., t.l., works lb. .19 —
bgs. l.c.l. works lb. .20½ .27
Ammonium sulfate standard granular, bulk f.o.b works base price ton.35.00 - —
Ammonium sulfate, stancard gran., purif., c.l., 100-lb bgs., f.o.b works lb. .08½- —
Large granular bulk c.l. works ton 35 00 - —
bgs. c.l., works ton 40 00 - —
Tech., bulk c.l. t.l., works ton 52 00 - —
bgs., c.l., t.l., works ton 56 00 - —
bgs., l.c.l. t.l.l. works 100 lbs 3.20 5.20
Ammonium sulfide, aq. 40-44%, tanks, frt equaid., 100% basis, ton.160.00 —
Ammonium sulfocyanide, tech. (see Ammonium thiocyanate)
Ammonium thiocyanate tech. cryst. dms. c.l. works lb. .20 —
dms. l.c.l. works lb. .22 .26
Tech, soln., 50%, tanks, frt. equaid., basis ammonium thiocyanate content lb. .17¼- —
Ammonium thioglycolate, comi., 55-gal. dms., ton lots, 100% basis lb 1.15 —
d-Amphetamine hydrochloride, monobasic dms lb.17 50 -23 50
dl-Amphetamine hydrochloride, dibasic dms lb 4.50 6.00
d-Amphetamine phosphate, 6b dms., 100-lb lots lb.15 00 —
dl-Amphetamine phosphate, dms.lb 4.20 5.60
d-Amphetamine sulfate, 6b. dms. lb.15.00 -17 00
dl-Amphetamine sulfate, 6b. dms., lb 4.20 5.60
Amyl acetate ex fusel oil, tech., dist from 125° to 150°C., dms. c.l., frt alld E of Rockies lb .18½- .19
dms. l.c.l., same basis lb. .20 .20½
tanks, same basis lb. .16 .16½
Amyl acetate ex pentane, reg., dms., c.l., dlvd lb. .19 —
dms. t.c.l. dlvd lb. .21½ —
tanks, dlvd lb. .16½ —
tech dms. c.l. dlvd. lb. .17 —
dms l.c.l., dlvd. lb. .18½- —
tanks dlvd lb. .14½- —
Amyl acetate syn. oxo process, dms., c.l., dlvd lb. .19 —
dms., c.l. dlvd lb. .20½ —
tanks, dlvd lb. .16½ —
Amyl alcohol ex fusel oil (see Fusel oil refd).
Amyl alcohol, ferment, refd., 128°-132°C., dms., l.c.l., dlvd lb. .43½- —
refd., ACS grade, dms., l.c.l., dlvd lb. .45½- —
ex pentane, mixed amyls, dms., c.l., frt. alld lb. .19 - —
dms., l.c.l. frt. alld lb. .20½- —
tanks, frt alld lb. .16½- —
Amyl alcohol, primary, dms., c.l., frt. alld lb. .20¼ —
dms., l.c.l. frt. alld lb. .21¾ —
tanks, frt alld lb. .17¾ —
Sec-synthetic dms., c.l., works, frt alld lb. .19 —
dms., l.c.l., same basis lb. .20½- —
tanks, same basis lb. .17 —
Tert-synthetic, dms., c.l., frt. alld E lb. .17 —
dms., l.c.l., frt. alld E. lb. .18½- —
tanks, frt alld E lb. .14½- —
Amyl alcohol 1-pentanol (syn. normal), dms., c.l., works lb. .41½- —
dms., l.c.l., works lb. .43 - —
tanks, works lb. .39½- —
2-pentanol, dms., c.l., works lb. 65 - —
dms., l.c.l., works lb. .70 - —
tanks, works lb. .60 - —
Amyl n-butyrate, dms. lb. 1.00 1 25
Amyl cinnamic aldehyde dms lb 1.70 2.20
p-tert Amyl phenol, dms., c.l., works, lb. .28 - —
dms., l.c.l., works lb. .29 - —
Amyl salicylate, cns., dms. lb. .71 - —
Amyris oil, dms lb. 1.50 - —
Anethol, tech., dms. lb .80 .92
USP, cns., dms. lb 1.05 - —

Angelica root, bls. lb. .50 - 1.00
Angelica root oil, bots. lb.120.00 -140.00
Angelica seed oil, bots. lb.120.00 -130.00
Aniline dms., c.l., frt. alld. lb. .20 - —
dms., l.c.l., frt. alld. lb. .21 - —
tanks, frt. alld. lb. .18 - —
Aniline oil (see Aniline).
Aniline salt, dms., c.l. t.l., 20,000 lbs. min., frt. alld lb. .33 - —
dms., l.c.l., same basis lb. .35 - —
Anise oil, USP, dms. lb 1.75 3.00
Anise seed, Mexican, bgs. lb. .24 - —
Spanish, bgs. lb. .24 - —
Anisic aldehyde, dms lb 1.50 - 2.20
o-Anisidine, dms., c.l., frt. alld lb. .80 - —
dms., l.c.l., same basis lb. .82 - —
tanks, same basis lb. .78 - —
p-Anisidine, dms., works lb. .97 - —
Anthracene, 90-95%, dms., c.l., t.l. f.o.b., works lb. .42½- —
dms., l.c.l., minimum shipment 1,000 lbs., same basis lb. .45 - —
Anthranilic acid, 99% 150-lb. dms., dlvd lb 1.15 - —
Anthraquinone, 99.5% bgs., c.l., frt. alld lb. .70 - —
bbls., l.c.l., same basis lb. .73 - —
Electrical grade, bgs., l.c.l., same basis lb 1.10 —
Antimony butter (see Antimony trichloride).
Antimony metal, bulk, c.l., mines, lb. .29 - —
cs., c.l., mines lb. .29½- —
Antimony oxide, bgs., c.l., frt. alld. lb. .26½- —
bgs., l.c.l., frt. alld. lb. .28 - —
Prices of antimony oxide are 2% higher west of the Rockies.
Antimony sulfide, approx 65%, bgs., 10,000-lb. lots, dlvd lb. .23 - —
bgs., smaller lots, dlvd lb. .24 - .26
Antimony trichloride, anhyd., solid, pails, c.l., works lb. .41 - —
pails, l.c.l., works lb. .43 - —
Antimony-potassium tartrate, tech., powd., 250-lb. dm., f.o.b. works, E lb. .69½- —
USP, powd., 250-lb dm. same basis lb. .74½- —
Apomorphine hydrochloride, USP, bots., 25-oz. lots oz.35.60 - —
Apricot kernel oil, USP, dms lb. .55 - .70
Arabic gum, amber sorts, 10 bgs. lb. .21 - .23
USP, powd., bbls lb. .27 - .30
Areca nuts, powd., bbls. lb. .13 - —
Arecoline hydrobromide, NF, bots., tins, 100 oz. or more oz. 4.00 - —
1-Arginine, free base, dms., 10-kilo lots or more kilo.90.00 - —
1-Arginine glutamate, dms., 10-kilo lots or more kilo.64.80 - —
1-Arginine monohydrochloride, dms., 10-kilo lots or more kilo.60.00 - —
Arnica flowers (true Montana), bls. lb. .75 - —
Aromatic petroleum solvents (see Solvent Naphtha petroleum, aromatic).
Arsenic, crude (95%), bulk, c.l., works lb. .016 - —
bbls., c.l., works lb. .031 - —
Arsenic trioxide, NF, powd., dms., 300-lbs., f.o.b. works lb. .48 - —
Arsenic, white, powd., bbls., c.l., works lb. .04½- —
bbls., l.c.l. works lb. .06½- .07½
Arsenous acid, tech. (see Arsenic, white).
Arsenous acid, USP (see Arsenic trioxide).
Arylid maroons, deep shades, bbls. lb. 3.70 - —
Light shades, bbls. lb. 2.85 - —
Asafetida gum, cns lb. .36 - .40
Powd., bbls., dms lb. .75 - .80
Asbestine (see Talc, fibrous, New York).
Asbestos, Canadian crude
6D, c.l. (30 tons), mines ton.86 00 - —
7D, c.l (30 tons), mines ton 75 00 - —
7F, c.l (30 tons), mines ton.71.00 - —
7H, c.l (30 tons), mines ton.61 00 - —
7K, c.l. (30 tons), mines ton.50.00 - —
7M, c.l. (30 tons), mines ton.44.00 - —
7R, c.l. (30 tons), mines ton.43.00 - —
7RF, c.l (30 tons), mines ton.44.00 - —
7T, c.l. (30 tons), mines ton 41.00 - —
7TF, c.l. (30 tons) mines ton.44.00 - —
Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher.
Ascorbic acid, USP, dms., 100-kilos. kilo. 6.80 - —
dms., less than 100-kilos kilo. 7.05 - —
Ash, black (see Barium sulfide).
Asphalt, gilsonite, black jet, bgs., c.l., mines ton.43.00 - —
ex-whse, 5 tons or more, N. Y., N. J ton.89.50 - —
select, brilliant black, 340°-360°F. fusing pt., bgs., c.l., mines, ton.46.00 - —
270°-295°F. fusing pt., bgs., c.l., mines ton.43.00 - —
Asphalt, petroleum, cut-back, tanks, tankwagon, refy gal. .09½- —
emulsion, tanks, tankwagon, refy. gal. .09½- —
steam-refd., 50-80 penetration, tanks, tankwagon, refy. ton.21.00 - —
85-300 penetration, tanks, tankwagon, refy ton.20.00 - —
Aspirin (see Acetylsalicylic Acid)
Atropine NF tins oz. 5.75 7.50
Atropine sulfate USP, bots oz 5.25 5.75
Azelaic acid, bgs., c.l., dlvd. lb. .40 —
bgs., ton lots, same basis lb. .41 - —

B

Bacitracin, bulk, 1,000,000,000 or more units 50,000 units. .65 —
less than 1,000,000,000 units, 50,000 units. .70 —
Balm of Gilead buds, dried, bgs lb. 1.25 1.35
Barberry root bark, bgs lb. 1.00 1.10
Barbital, NF, 100-lb dms., f.o.b. works lb. 4.50 - —
Barbital sodium, NF, 100-lb dms. lb. 4.75 - —
Barium carbonate, precip., bgs., c.l., works ton.111.50 - —
bgs., smaller lots, works ton.126 50 - —
Barium chlorate, dms., works lb. .32 - .41
Barium chloride anhyd., bgs., c.l., works ton.176.00 - —
bgs., l.c.l., works ton.196.00 - —
NF, cryst., dms., 400-lbs., works lb. .23 - —
Tech., cryst., bgs., c.l., works, 100 lbs. 7.00 - —
bgs., l.c.l., works 100 lbs. 8.00 - —
Barium chromate, bgs. frt. equaid. lb. .38 - —
Barium dioxide (see Barium peroxide).
Barium hydrate, cryst., bgs., c.l., t.l., frt. equald ton.208.00 - —
bgs., l.c.l., t.l., frt equald ton.218 00 - —
Barium monohydrate, 99%, bgs., c.l., frt. equald 100 lbs.11.25 - —
bgs., l.c.l., frt. equald 100 lbs.11.75 - —
Barium monoxide (see Barium oxide).
Barium nitrate, bbls., c.l., t.l., dlvd lb. .16 - —
bbls., l.c.l., t.l.l., dlvd. lb. .17 - —

Barium oxide, grd., dms., c.l., t.l., frt equald ton275.00 - —
dms., l.c.l., t.l.l., frt. equald. ton.285.00 - —
Barium peroxide, dms., frt. equald. lb .20 - —
Barium stearate, ctns., c.l., frt. alld. lb. .41 - —
ctns., l.c.l. same basis lb. .42 - .46
Barium sulfate, tech. (see Barytes and blanc fixe).
Barium sulfate, X-ray, 100-lb. dm. lb. .19 - —
Barium sulfide, dms., c.l., works. ton.100.00 - —
dms., l.c.l., works ton.110.00 - —
Barytes, southern, off-color, bgs. mines ton.30.00 - —
95-75%, bgs., mines ton.30.00 - —
white, water-grd., paper bgs., c.l., St. Louis ton.60.00 -60.25
paper bgs., ex whse New York ton.84.85 —
Battery acid, cbys., c.l., works E. 100 lbs 2.35 —
cbys, l.c.l., works, E 100 lbs 2.65 -10.95
Bauxite, bulk, mines ton 7.00 -10.00
Bay oil, NF, Puerto Rican, 50-55% cns lb. 2.40 2.70
55-60%, cns. lb. 2.55 —
NF, West Indian, 50-55%, cns. dms lb. 3.25 - 3.50
Bayberry wax, bgs lb. .65 - .70
Beeswax, crude, African, bgs. lb. .54 - .55
Brazilian, bgs. lb. .58 - .59
Central American, bgs. lb. .54 - .55
Chilean, bgs. lb. .59 Nom.
Refd. USP bleached white, bricks 100-lb. ctns lb. .67 - .69
white, slabs, 100-lb. ctns. lb. .66 - .68
yellow, bricks, 100-lb ctns lb .59 - .61
yellow, slabs, 100-lb. ctns lb .58 - .60
Belladonna leaf, bls. lb. .24 - .26
Belladonna root, bls. lb. .28 - .35
Bentonite, dom. 200 mesh, bgs., c.l., mines ton.14.00 - —
Imp. Italian, white, high gel., bgs., 5-ton lots, ex whse ton.95.20 - —
bgs., 1-ton lots, ex whse ton.99.00 - —
Imp. Italian, white, low gel., bgs., 5-ton lots, ex whse ton.93.40 - —
bgs., 1-ton lots, ex whse ton.97.16 - —
Benzal chloride, cbys., works lb. .44 - —
Benzaldehyde, NF, dms. lb. .80 - 1.05
Tech., dms., c.l., t.l. lb. .47 - —
dms., l.c.l. lb. .48 - —
Benzene, pure or nitration, tanks, works:
Baton Rouge, La. gal. .34 - —
Bethlehem, Pa gal. .34 - —
Birmingham district gal. .34 - —
Chicago district gal. .34 - —
Cleveland district gal. .34 - —
Geneva, Utah gal. .34 - —
Houston, Tex. gal. .34 - .40
Johnstown, Pa gal. .34 - —
Benzene, pure or nitration, tanks, works:
Lorain, Ohio gal. .34 - —
Middletown, Ohio gal. .34 - —
Mennequa, Colo. gal. .34 - —
Philadelphia district gal. .34 - —
Pittsburgh district gal. .34 - —
Port Arthur, Tex. gal. .34 - —
Benzene, pure or nitration, tanks, works:
St. Louis, Mo. District gal. .34 - —
Sparrows Point, Md. gal .34 - —
Syracuse, N. Y. gal. .34 - —
Terre Haute, Ind. gal. .34 - —
Youngstown, Ohio gal. .34 - —
Lackawanna, N. Y. gal. .34 - —
Lone Star, Tex gal. .34 - —
Benzene hexachloride, 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride, tech., high gamma, bgs., c.l., t.l., consignment, dlvd. gamma-unit. .0075 —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0065- —
Tech., low gamma, bgs., c.l., t.l., consignment, dlvd gamma-unit. .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0056- —
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis lb. 1.19 - —
bbls., l.c.l., same basis lb. 1.21 - —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis lb. 1.21 - —
Benzidine yellow, AAA, bbls., dlvd. lb. 2.20 - —
AAOT, bbls., dlvd. lb. 2.55 - —
Lightfast, bbls., dlvd. lb. 3.40 - —
Benzocaine, dms., 100-lbs., frt. alld. lb. 3.25 - —
Benzoic acid, tech., dms., c.l., t.l., frt. alld lb. .25 - .37
dms., l.t.l., same basis lb. .29 - .41
tanks, same basis lb. .21 - —
USP, bbls., dms., ton lots lb. .48 - —
bbls., dms., 1,000-lb lots lb. .50 - —

BENZOL
Benzol quotations, both coaltar and petroleum, may be found under Benzene.

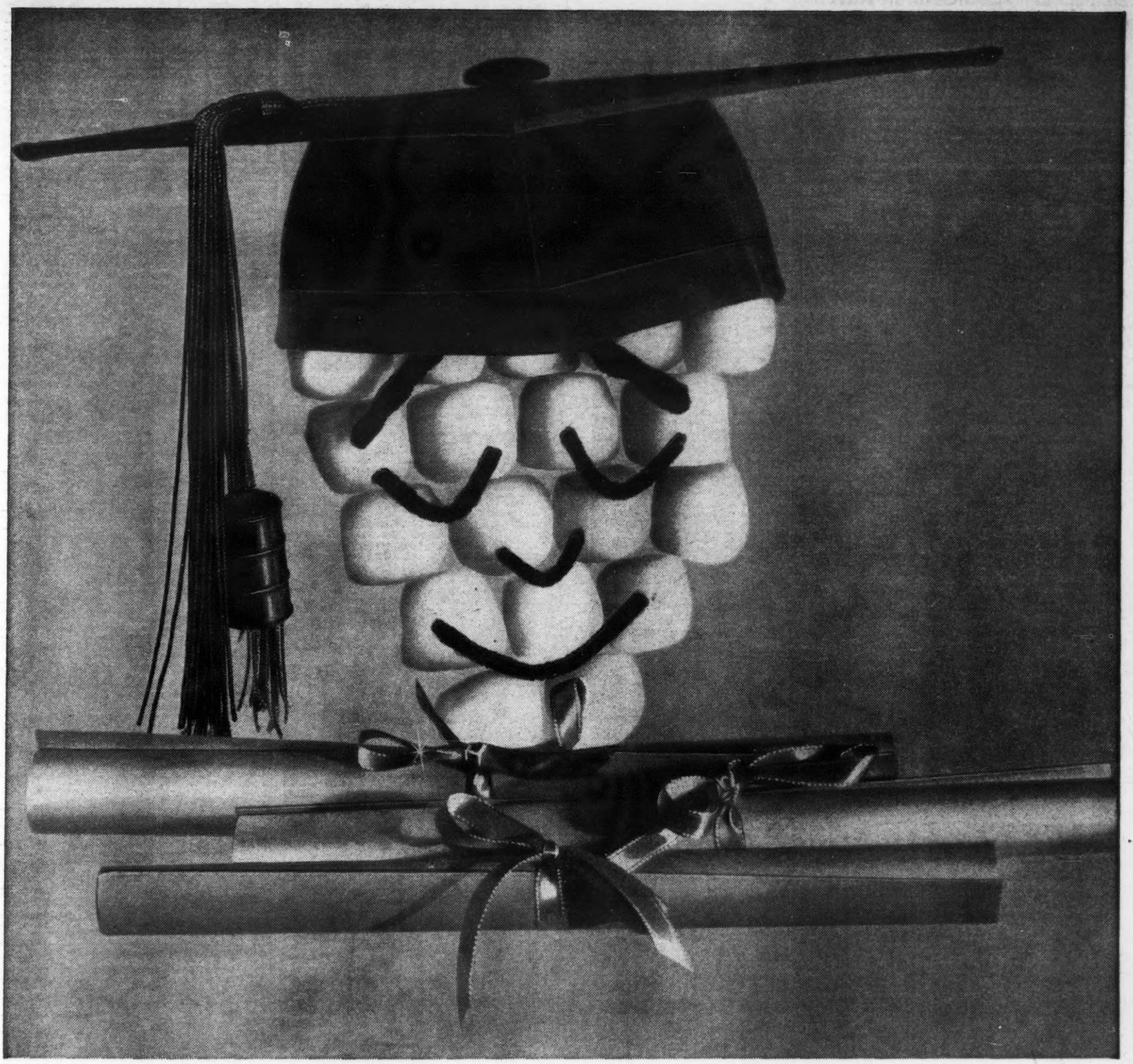
Benzoin gum, Sumatra, cs. lb. .32 —
Benzophenone, dms lb. 1.35 - 1.40
Benzotriazole, tech. dms., 1,000-lb. lots, works lb. 1.95 - —
Benzotrichloride, cbys., 1,000-lb lots or more, frt. equald.lb. .21 - —
cbys., smaller lots, frt. equald lb. .23 - —
Benzoyl chloride, cbys., dms., c.l., works, frt. equald lb. .22 - —
cbys., l.c.l., same basis lb .23 - —
tanktrucks, dlvd Metropolitan area lb. .21 - —
Benzoyl peroxide, purif., fib. dms., 50 to 1,000-lb lots, works lb. .98 - 1.08
Benzyl acetate, f.f.c., cns., dms lb. .54 - —
Benzyl alcohol, NF, dms. lb. .54 - —
Tech. dms., dlvd lb. .47½- .65
Benzyl benzoate, USP, 40-lb. dms.lb. .62 - —
Benzyl chloride, tech., cbys., dms., c.l., works, frt. equald lb. .22½- .25½
cbys., dms., l.c.l., same basis lb. .23½- .25½
tanktrucks, dlvd. Metropolitan area lb. .21 - —
A 2½c. differential is quoted on benzyl chloride in 5-gal. cbys. in steel dms. prices are ½c. lower.
Benzyl cinnamate, cns. lb. 3.30 - 3.60
N-Benzyl-N,N-dimethylamine, 50 dms., frt. alld lb. 1.25 - —
12-49 dms., same basis lb. 1.35 - —
1-11 dms., same basis lb. 1.90 - —
Benzyl formate, cns. lb. 1.70 - 1.85
Benzyl isoeugenol, cns lb. 8.20 - 8.30
Benzyl propionate, bots lb. 1.30 - 1.35
Benzyl salicylate, bots lb. 1.50 - 1.85
Benzylidine acetone, bots lb. 1.65 - 1.75
Benzylidine chloride (see Benzal chloride).
Berberine bisulfate, cns lb.56.50 - —
Berberine hydrochloride, bots lb.56.50 - —
Bergamot oil, nat., NF, Italian, cns. lb.11.00 -12.00
Betagammapicoline (see b.g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).
Betamethyinaphthalene (see Methylnaphthalene).
Betanaphthol (see b-Naphthol).
Betanaphthylamine (see b-Naphtholamine)
Betaoxynaphthoic acid (see b-Oxynaphthoic acid).
Betaphenylethylamine (see b-Phenylethylamine).
BHC (see Benzene hexachloride, tech.).
Biotin, cryst., bots. gram.10.00 - —
Biphenyl (see Diphenyl).
Birchtar oil, crude, cns. lb. 1.50 - 1.90
Rectified, cns. lb. 1.75 - 2.00
Bismuth chloride, jars. lb. 5.11 - —
Bismuth hydroxide, dms. lb. 4.60 - 4.65
Bismuth metal, bxs., ton lots. lb. 2.25 - —
Bismuth nitrate, cryst., 250-lb. dm. lb. 2.25 - —
Bismuth oxychloride, 25-lb. dm., f.o.b. works lb 4.42 - —
Bismuth subcarbonate, USP, 150-lb. dm lb 3.70 - —
Bismuth subgallate, NF, 200-lb dm., f.o.b. works lb. 3.98 - —
Bismuth subiodide, fib dms lb. 5.37 - —
Bismuth subnitrate, NF, 200-lb. dm., f.o.b. works lb. 3.15 - —
Bismuth subsalicylate, USP, 100-lb. dm, f.o.b. works lb. 4.15 - —
Bismuth trioxide, 100-lb. dms., t.o.b works lb. 4.40 - —
Bismuth-ammonium citrate, USP, powd., jars lb. 4.22 - —
Bisphenol-A, bgs., c.l., t.l., single shipt., 70,000-lbs. or more, frt. alld lb. .30½- —
bgs. c.l., t.l., less than 70,000 lbs., same basis lb. .31 - —
bgs., l.c.l., same basis lb. .32½- —
Blackberry root bark, bls lb. .50 .55

BLACK PIGMENTS
Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black.

Blanc fixe, direct process, bgs., c.l. works ton.160.00 —
bgs., l.c.l., works ton.170.00 - —
bgs., l.c.l., New York whse ton.215.00 - —
Blood, dried, 16-16½% ammonia, bgs., New York unit-ton 5.50 —
Bloodroot, bls. lb. .85 .90

BLUE PIGMENTS
Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue.

Blue dyes (see Dyes).
Blue vitriol (see Copper sulfate).
Bois de rose oil, Brazilian, dms lb. 2.05 - —
Peruvian, dms. lb. 1.65 - —
BON acid maroons, pure, bbls lb 1.75 - —
Resinated, bbls. lb. 1.50 - —
Bone black, dms., c.l., frt. alld lb. .1750- .2225
l.c.l. works lb .1950- .2425
Pacific coast bone black prices 3¼c. per lb. higher
Bonemeal, steamed works, E ton 80.00 - —
Bone phosphate, defluorinated of lime (see Defluorinated phosphate).
Bone phosphate, precip (see Calcium phosphate trihasic)
Borax, tech. anhyd., 99½%, bgs., c.l., works ton 92.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs .42 —
bgs., smaller lots, same basis 100 lbs 8.67 -10.67
bulk, c.l. works ton 83 00 —
Borax, tech., gran., decahydrate, 99½% bgs. c.l., works. ton.50.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 5.32 - —
bgs. smaller lots same basis 100 lbs 6.57 6.57
bulk c.l., works ton 43 50 —
pentahydrate, 99½%, bgs., c.l., works ton.64.50 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs 6.05 - —
bgs., smaller lots, same basis 100 lbs 7.30 9.30
bulk, c.l., works ton.58 00 - —
USP powd., bgs. c.l., works ton.54.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 6.45 - —
bgs. smaller lots, same basis, 100 lbs. 7.70 - 9.70
Bordeaux powder, tribasic bgs. c.l., dlvd lb. .24 - —
bgs. l.c.l., same basis lb. .26 - —
Boric acid, tech. anhyd. 99.9% bgs., c.l., works ton.335.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs.19.62 - —
bgs. smaller lots, same basis, 100 lbs.20.87 -22.87
cryst. 99.9% bgs., c.l., works, ton.163.50 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs.11.05 - —
bgs., smaller lots, same basis, 100 lbs.12.30 -14.30
Boric acid, tech., cryst., 99.9%, dms., c.l., works ton.188.50 - —
dms., ton lots, ex whse., New York or Chicago, 100 lbs.12.30 - —
bgs., smaller lots, same basis 100 lbs.13.03 - —
Boric acid, gran., 99.9%, bgs., c.l., works ton.112.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs 8.47 - —
bgs., smaller lots, same basis, ton.174.25 - —
dms., c.l., works ton.137.00 - —
dms., ton lots, ex whse, New York or Chicago 100 lbs 9.72 - —
dms., smaller lots, same basis 100 lbs.10.47 - —
bulk, c.l., works ton.106.00 - —
powd., bgs., ton lots, ex whse., New York or Chicago. 100 lbs. 8.85 - —
bgs., smaller lots, same basis 100 lbs.10.10 -12.10
Boric acid, powd., dms., smaller lots, same basis 100 lbs.11.45 - —
USP boric acid $25 per ton higher in bags.
Borneol, cns. lb. 2.75 - —
Boron trichloride, CP, 1,800-lb. cyls., works lb. 1.25 - —
100-lb. cyls., works lb. 1.70 - —
Boron trifluoride, gas, cyls., t.l., works lb. .70 - —
cyls., l.t.l., works lb. .70 - —
Brimstone (see Sulfur).
Broenner's acid, bbls lb. 1.53 - —
Bromine, purif., cs., c.l., t.l., dlvd. E of Rockies lb. .32 - —
cs., l.c.l., same basis lb. .34 - .39
ret. dms., c.l., t.l., dlvd. E. of Rockies lb. .31 - —
ret. dms., l.c.l., same basis lb. .31 - .34
tanks, same basis lb. .21½- —
Bromochloromethane, dms., c.l., frt. equald lb. .48 - —
dms., l.c.l., same basis lb. .50 - —
tanks, same basis lb. .47 - —
Bromoform, pharmaceutical grade, 5-gal. cby., frt. equald lb. 1.95 - —



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FINE HEYDEN CHEMICALS

HEYDEN CHEMICAL DIVISION
Heyden Newport Chemical Corporation
342 Madison Avenue, New York 17, New York

Bromstyrol, bots. ..... lb 5.25 - 5.35
Brucine, cns. ..... oz Nominal
Brucine sulfate, NF, cns. 1.45 1.75
Buchu leaves, bbls. ..... lb .70 - .75

BROWN PIGMENTS

Brown pigment quotations are listed individually. For example, prices on Brown Iron oxide may be found in the l's under Iron oxide brown.

Butadiene, refd, cyls, c.l., refy lb .21 —
cyls, l.c.l., refy lb .22 - —
tanks, dlvd. lb .12¾- —
Butene-1, tanks, works lb .0625 —
Butene-2, tanks, works lb .0570 —
n-Butyl acetate, ferment, dms., c.l., frt. alld lb .17 - —
dms., l.c.l., same basis lb .18½- —
tanks, same basis lb .14½- —
Syn. dms. c.l., dlvd. E lb .17 —
dms., l.c.l., same basis lb .18½- —
tanks, same basis lb .14½- —
sec-Butyl acetate, syn. dms., c.l., dlvd. E lb .14¾- —
dms., l.c.l., same basis lb .16¼- —
tanks, same basis lb .12¼- —
n-Butyl acrylate, dms., c.l. or t.l., straight or mixed, frt. alld, E lb .37½- —
dms., l.t.l., same basis lb .38½- —
tanks, same basis lb .35 - —
Prices of n-Butyl acrylate are 1c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
n-Butyl alcohol, ferment, dms., c.l., frt. alld lb .18 —
dms., l.c.l., frt. alld lb .19½- —
tanks, frt. alld. lb .15½- —
n-Butyl alcohol, syn., dms., c.l., dlvd lb .18 - —
dms., l.c.l., frt. alld lb .19½- —
tanks, dlvd lb .15½- —
Sec-synthetic, dms., c.l., dlvd lb .15 - —
dms., l.c.l., dlvd. lb .16½- —
tanks, dlvd lb .12½- —
n-Butyl alcohol, tert-synthetic, dms., c.l., frt. alld., dlvd E lb .16 - —
dms., l.c.l., same basis lb .17½- —
tanks, same basis lb .13½- —
Butyl aldehyde (see Butyraldehyde).
Butyl chloride, dms., c.l., works lb .37½- —
dms., l.c.l., works lb .38¼- —
n-Butyl ether, dms., c.l., works lb .35¼- —
dms., l.c.l., works lb .36 - —
tanks, works lb .33¼- —
Butyl lactate, dms., c.l., frt. alld, E of Rockies lb .42½- —
dms., l.c.l., same basis lb .43¼- —
tanks, same basis lb .40 - —
Butyl laurate, dms., works lb .37½- —
Butyl methacrylate, dms., c.l., t.l., works lb .55 - —
dms., l.c.l., works lb .55½- —
Butyl oleate, refd., dms., l.c.l., works lb .32 - —
Butyl phenylacetate, dms. lb 4.50 4.60
Butyl phthalate (see Dibutyl phthalate).
Butyl stearate, dms., c.l., frt. alld, E. of Rockies lb .27¼- —
dms., l.c.l., same basis lb .28¼- —
Butylamine (see Mono-, Di- and Tri-butylamine).
tert-Butylamine, dms., c.l., t.l., f.o.b. works lb .47 - —
dms., l.c.l., same basis lb 47½- —
tc., t.t.l., same basis lb 45 - —
Butylated hydroxyanisole, f.m.n. grade, dms., dlvd lb 4.75 - —
6-tert-Butyl m-cresol (see Mono-tert-butyl m-cresol).
Butylated hydroxytoluene (see 2,6-Di-tert-butyl p-cresol).
1,3-Butylene glycol, dms., c.l., t.l., dlvd lb 20½- —
dms., l.c.l., t.l., f.o.b. works lb .22 - —
tanks, dlvd lb .18 - —
p-tert-Butylphenol, bgs., c.l., dlvd. lb 27½- —
bgs., l.c.l., works lb 28½- —
Butyraldehyde, dms., c.l., dlvd lb .22 —
dms., l.c.l., dlvd lb 23½- —
tanks, dlvd lb 19½- —
Butyric acid, 99%, dms., c.l., frt. equald lb .34 - —
dms., l.c.l., same basis lb 34½- —
tanks, same basis lb .32½- —
Butyric ether (see Ethyl butyrate).
Butyrolactone, dms., c.l., t.l., works lb .40 - —
dms., l.c.l., same basis lb .43 - —
n-Butyronitrile, dms., c.l., dlvd lb .56½- —
dms., l.c.l., dlvd. lb .57½- —
tanks, dlvd. lb .54 - —

C

Cacao butter (see Cocoa butter).
Cadmium CP red dark shade, bbls., frt alld E of Rockies lb 5.55 - —
Light shade, bbls., same basis lb 4.65 - —
medium shade, bbls., same basis, lb. 5.30 - —
Medium light shade, bbls., same basis lb 4.90 - —
Orange-red shade, bbls., same basis lb 4.30 - —
Yellow, all shades bbls. frt alld E. of Rockies lb. 2.95 - —
Cadmium chloride, 400-lb. dms., f.o.b. shipping point lb 1.49 - —
Cadmium iodide 25-lb fib dms lb 6.75 7.00
Cadmium metal, prods. in sticks, ton lots, cs., dlvd lb. 1.60 - —
Cadmium nitrate, purif., cry., 400-lb. dms., less than 5,000 lbs., f.o.b. shipping point. lb. .89 - —
400-lb. dms., 5,000 lbs. or more, same basis lb. .87 - —
Cadmium-mercury lithopone orange, deep shade bbls. frt alld E. of Rockies lb. 1.70 - —
Cadmium-mercury lithopone red, dark shade, bbls. same basis lb 2.00 - —
Red, light shade bbls. same basis lb 1.77 - —
Red, medium shade bbls. same basis lb. 1.92 - —
Red, medium light shade bbls. same basis lb. 1.85 - —
Red, maroon shade bbls. same basis lb. 2.08 - —
Cadmium-selenide lithopone maroon, bbls., frt alld E of Rockies lb. 2.81 - —
Orange, bbls., same basis lb. 1.63 - —
Cadmium-selenide lithopone red, orange-red shade bbls. same basis lb. 1.77 - —
Red, dark shade bbls. same basis lb. 2.61 - —
Red, light shade, bbls. same basis lb. 1.63 - —
Red, medium shade, bbls. same basis lb. 2.28 - —
Red, medium-light shade bbls. same basis lb. 2.05 - —
Cadmium-selenide, lithopone, yellow, all shades bbls. frt alld E. of Rockies lb. 1.24 - —

Caffeine, NF, citrated, dms., 100-lb. lots or more lb 2.70 - —
USP, nat., cryst., anhyd., dms., 100-lb. lots or more lb 2.10 - —
Caffeine, USP, nat., cryst., hydrous, dms., 100-lb. lots or more lb 1.96 - —
Caffeine, USP, syn., anhyd., dms., 100-lb. lots or more lb. 2.10 - —
cryst., hydrous, dms., 100-lb. lots or more lb 1.96 —
Cajuput oil, native, cns. ..... lb 1.75 2.00
Redist., USP, cns ..... lb 1.90 2.10
Calamine, USP, dms. ..... lb .34 —
Calamus oil, bots. ..... lb 12.00 20.00
Calciferol, cryst., 10-kilo or more lots, works gram .54 - —
1-10 kilo lots gram .55 - —
Calciferol in edible oil (see Viosterol).
Calcium p-aminosalicylate trihydrate, fib. dms., 100 lbs. or more, frt. adjusted lb 3.10 - —
Calcium bromide, NF, jars, 100 lbs. or more lb 1.10 - —
Calcium carbide, standard generator size, 600-lb. dms., c.l., dlvd ton 149.00 - —
Calcium carbonate, nat., dry grd., air floated, 325 mesh, bgs., c.l., works ton 10.50 - —
Calcium carbonate, chalk, whiting, 325 mesh, bgs., c.l., works ton 32.00 - 34.00
water-grd., ½ to 10 microns, bgs., c.l., works ton 30.00 —
10 to 20 microns, bgs., c.l., works ton 17.00 - 18.00
Calcium carbonate, precip., dense, bgs., c.l., works ton 30.00 - 38.50
bgs., l.c.l., works ton 45.00 53.50
medium, bgs., c.l., works ton 38.00 —
bgs., l.c.l., works ton 48.00 - 53.00
Calcium carbonate, surface treated, bgs., c.l., works ton 42.00 - 44.00
bgs., l.c.l., works ton 57.00 - 59.00
ultrafine, bgs., c.l., works ton 117.50 - 167.50
bgs., l.c.l., works ton 137.50 - 187.50
Calcium chloride, conc., flake or pellet 94-97%, paper bgs., c.l. works, frt. equald ton 39.30 - —
Flake, 77-80%, paper bgs., c.l., works, frt. equald ton 32.00 - —
Liquor, 40% tanks, frt. equald ton 12.50 - —
Powd., 77% min., paper bgs., c.l., works, frt. equald ton 37.00 - —
Purif., gran., dms lb .27 —
Calcium chloride, solid, 73-75%, dms., c.l., frt. equald ton 29.50 - —
dms., l.c.l., works frt equald ton 36.00 - 73.00
USP, gran., dms. ..... lb .32 —
Calcium chromate, bgs., dlvd lb .37 —
Calcium cyanide, dms., c.l., dlvd E. of Rockies lb .20 —
dms., l.c.l., same basis lb .24 .55
Calcium cyclamate, 100-lb. dms. lb 1.95 —
Calcium gluconate, USP, AA grade, 100-lb. dm., ton lb 73½- —
USP, powd., 100-lb. dm., ton lb .66½- —
Calcium hydride, lump, dms., works, lb 2.20 3.00
Calcium hypochlorite, high test, gran., 45-lb. cs., dlvd E. of Rockies cs 23.85 - 25.60
100-lb. dms., same basis dm 33.30 - 36.55
Calcium hypophosphite, dms., 1,000-lb. lots lb 1.28 —
Calcium iodide, 25-lb. jars, works, lb 4.27 - —
Calcium lactate, NF, dms., f.o.b. works lb .43 - .46
Calcium mandelate, USP, 150-lb. dm., works lb 3.25 - —
Calcium naphthenate, liq., 4% Ca., dms., frt equald lb .30 - —
Calcium pantothenate, USP, jars, 1 kilo or more kilo 35.00 - —
Calcium para-aminosalicylate (see Calcium p-aminosalicylate).
Calcium phenosulfonate, dms. lb 1.24 1.25
Calcium phosphate, dibasic, USP, bgs., c.l., frt equald 100-lbs. 16.00 - —
Dibasic, feed grade, 18½% P, bgs., c.l., t.l., Bonnie, Fla., frt. equald ton 81.00 - —
bgs., c.l., t.l., f.o.b. Texas City works ton 75.50 - —
bgs., l.c.l. ton 96.00 - —
Calcium phosphate, dibasic, feed grade, 21% P., bgs., c.l., t.l., frt. equald ton 97.65 - —
bgs., l.c.l., frt equald ton 107.65 —
Prices of calcium phosphate, dibasic in bulk $3 per ton less than bgs. c.l. prices.
Calcium phosphate, monobasic, bgs., 10,000-lb. lots, frt. equald, 100 lbs. 7.45 —
bgs., smaller lots, same basis, 100 lbs 7.95 —
Tribasic, NF, precip., bgs., c.l., works, frt. equald 100 lbs. 9.25 - —
bgs., l.c.l., frt. equald 100 lbs. 10.00 - —
Calcium propionate, any quantity, dms., dlvd E. of Rockies lb. 34½- —
Prices W. of Rockies 3c. per lb. more.
Calcium phytate, bgs., 50 lbs. or more, f.o.b. warehouse N Y lb. .39 - —
Calcium resinate, precip., dms., frt. alld., works lb. .45 - —
Calcium silicate, hydrated, bgs., c.l., works lb .08 —
bgs., l.c.l., works lb. .06½- —
Calcium silicate, paint grade (see Wollastonite).
Calcium stearate, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. lb. .40 - .44
Calomel, NF, mild, powd., dms., 100-lbs., f.o.b. works lb 4.32 - —
NF, mild, precip., dms., 100-lbs., f.o.b works lb 5.67 - —
Camphene, 46° m.p., dms. incl., c.l., works lb .15 —
dms. incl., l.c.l., same basis lb. .16½- —
tanks, same basis lb. .12½- —
Camphene, chlorinated, 67-69% (see Toxaphene).
Camphor, monobromated, NF, dms., kgs lb. 3.63 3.70
Camphor, syn., tech., 1 bbl. or more, lb. .45 - —
USP, gran., powd., bbls., 1,000-lb. lots lb. .53 - —
bbls., smaller lots ..... lb. .54 - —
tablets, ctns., 1,000-lb. lots, lb. .80 - —
ctns., 500-lb. lots ..... lb. .81 - —
ctns., smaller lots ..... lb. .82 - —
Camphor oil, sassafrassy, dms. lb. .35 - .55
White, dms. ..... lb. .20 - .50
Cananga oil, native, cns. ..... lb 5.00 6.50
Rectified, cns. ..... lb 7.25 - 10.00
Candelilla wax, crude, bgs. ..... lb. .55 - .56
Refd., pure, bgs ..... lb. .60 - .62
Powdered Candelilla wax 20 to 100 mesh, 8c. higher.

Cantharides, Chinese, cs. ..... lb 1.00 - —
powd., bgs. ..... lb 1.15 - —
Russian, bgs. ..... lb 2.00 2.15
powd., bgs. ..... lb 2.15 2.30
Capric acid, dms. ..... lb .29¼- .31¼
tanks ..... lb 26¼- —
Caprolatam, monomer, bgs., c.l., t.l., f.o.b. works lb .52 - —
bgs., l.c.l., t.l.l., same basis lb .57 - —
tanks, same basis lb .49 - —
Capryl alcohol, 85% dms., c.l., t.l., works lb .19 - —
dms., l.t.l., same basis lb .19½- —
tanks, frt. equald. lb .16½- —
Sec., 92-99% dms., c.l., f.o.b. works lb .22 - —
dms., l.c.l., f.o.b. works lb .23 - —
tanks, f.o.b. works lb .19½- —
Caprylic acid, dms. ..... lb .29¼- .31¼
tanks ..... lb 26¼- —
Capsicum (see Pepper, red).
Capsicum oil (see Capsicum oleoresin).
Capsicum oleoresin, NF, from dom. pepper, dms. lb 4.00 - —
NF, from African pepper, dms. lb 4.50 - —
Caraway oil, NF, dms. ..... lb 3.75 - —
Caraway seed, Danish, bgs. ..... lb .16 - —
Dutch, bgs. ..... lb .18 - —
Polish, bgs. ..... lb .17¼- —
Carbazole, 97%, bbls., ton lots, works lb 1.05 - —
Carbon black, channel, rubber beads, bulk, c.l., works lb .08 - —
bgs., c.l., works lb .08½- —
bgs., l.c.l., works lb .16¼- —
Carbon black, furnace, fast extruding, bgs., c.l., works lb .08¼- —
ctns., l.c.l., whse lb .13½- —
Carbon black, high abrasion, bulk, c.l., works lb .07¼- —
bgs., c.l., works lb .07¾- —
bgs., l.c.l., dlvd. or whse lb .14½- —
high modulus, bgs., c.l., works, lb .06¼- —
ctns., l.c.l., whse lb .13 - —
semi-reinforcing, bgs., c.l., works lb .05¾- —
bgs., ctns., l.c.l., whse lb .12½- —
pigment, high color beads, ctns., c.l., works lb .78 - —
ctns., l.c.l., dlvd. or whse lb .87 - —
medium color, uncompressed, bgs., c.l., works lb .14 - —
bgs., l.c.l., dlvd. or whse lb .22½- —
Carbon dioxide, indust., wholesale, bulk, 30,000-2,999,999 lbs., dlvd. Metropolitan areas, E ton 60.00 - 115.00
bulk, 3,000,000 lbs. or more, dlvd. Metropolitan areas, E ton 55.00 - —
Solid, bulk, wholesale, works ton 85.00 - —
Carbon disulfide, 55-gal. dms., c.l., works, frt. equald to competitive points lb .071 - —
55-gal. dms., l.c.l., same basis lb .086 - .091
5-gal. dms., 30 dms to c.l., same basis lb .131 —
5-gal. dms., less than 30 dms., same basis lb .161 - —
tanks, dlvd. ..... lb .0520 - —
Carbon tetrachloride, CP, consumers dms. c.l., frt. alld. lb .12¾- —
dms., l.c.l., frt. alld. lb .15¼- —
Tech, consumers dms., c.l., t.l., frt. alld lb .11¾- —
dms. l.c.l. t.l.l. frt. alld lb .14¼- —
tanks, frt. alld lb .10¾- .11¼
Carboxymethyl cellulose (see CMC).
Carbromal, NF, dms., 100-lb. lots, works lb 4.00 4.25
dms., smaller lots, works lb 4.10 4.75
Cardamom oil, NF, bots ..... lb 43.00 - 45.00
Cardamom seed, bleached, "A" lb 3.45 - —
Bleached, "B" ..... lb 3.15 - —
Decorticated, Alleppey, cs ..... lb 2.15 - —
Guatemala ..... lb 2.85 - —
Green, Alleppey, bgs. ..... lb 2.15 - —
Ceylon, bgs. ..... lb 2.20 - —
Carmine No. 40, NF, bulk, 100-lb. lots or more, dlvd. ..... lb 16.80 - —
bulk, smaller lots, dlvd. ..... lb 16.90 - 17.30
Carnauba wax, chalky, bgs., ton lots, lb .74 Nom.
North Country, No. 2, crude, bgs., ton lots lb .80 - .82
refd., pure, ton lots ..... lb .87 - .88
North Country, No. 3, Ceara, crude, ton lots lb .68 - .70
North Country, No. 3, Parnahyba, crude, ton lots lb .70 - .72
No. 3, refd., pure, bgs., ton lots, lb .76 - .78
No. 1, Ceara, yellow, bgs., ton lots, lb .97 - .99
Parnahyba, yellow, bgs., ton lots, lb .99 - 1.01
Powdered carnauba wax, 20 to 100 mesh 8c. per lb. higher.
Carotene, tech., 1,350,000 A units per gram, tins, 5-10 kilo lots, dlvd gram .20½- —
in carrot oil, 5,000,000 to 8,000,000 A units per lb., dms., works million units .12 - —
USP, microcrystalline in oil, 400,000 A units per gram., dms., dlvd million units .144 - —
b-Carotene, in vegetable oil, semi-solid suspension, 400,000 A units per gram, cns. kilo 57.60 - —
b-Carotene, liquid, in vegetable oil, 500,000 A units per gram, cns kilo 72.00 - —
Pure, cryst., 1,600,000 to 1,670,000 A units per gram, cns. kilo 240.00 —
Carvol, bots. ..... lb. 5.00 5.40
Cascara sagrada bark, bulk ..... lb .32 - —
Casein, dom., edible, acid precip., 30 mesh, bgs., 10,000-lb. lots or more, works lb .56 - —
edible, acid precip., 80 mesh, bgs., 10,000-lb. lots or more, works lb .64 - —
Imp., inedible, acid-precip., grd., Argentine, bgs., c.l., ex-dock Eastern seaports lb .17¾- .18¼
Australian, bgs., c.l., same basis lb .22¼- .22¾
New Zealand, same basis ..... lb .24 - .25
Cashewnut shell, liquid, treated, dms., c.l., Newark, N.J. lb .24 - —
dms. ton lots, same basis ..... lb .25 - —
t.w., same basis ..... lb .22½- —
Cassella acid, dms., frt. alld., 100% basis lb 1.44 1.75
Cassia oil, redist., USP, cns. ..... lb 7.50 9.00
Cassia, Padang, "A," bls. ..... lb .31 - —
"B," bls. ..... lb .30 - —
"C," bls. ..... lb .29 - —
Korintje "A," bls. ..... lb .34 - —
"B," bls. ..... lb .30 - —
"C," bls. ..... lb .30 - —
Castor oil, dom., blown, dms., c.l., lb .2350- —
dms., l.c.l. ..... lb .2650- —
Castor oil, dom., dehydrated, bodied, dms., c.l. lb .2700- —
dms., l.c.l. ..... lb .2850- —
tanks ..... lb .2500- —
dehydrated, unbodied, dms., c.l., lb .2500- —
dms., l.c.l. ..... lb .2660- —
tanks ..... lb .2360- —
hydrogenated, bgs., c.l. ..... lb .2450- —
bgs., ton lots ..... lb .2850- —
bgs., l.c.l., dlvd. ..... lb .3050- —

Castor oil, dom., hydrogenated, No. 1, dms., c.l. lb .2200- —
dms., l.c.l. ..... lb .2300- —
tanks ..... lb .2000- —
No. 3, tech., dms., c.l. ..... lb .2125- —
dms., c.l., ... lb .2225- —
tanks ..... lb .1925- —
Refd., deod., dms., c.l. ..... lb .2650- —
dms., l.c.l. ..... lb .2750- —
tanks ..... lb .2450- —
USP, dms., c.l. ..... lb .2350- —
dms., l.c.l. ..... lb .2450- —
tanks ..... lb .2150- —
Imported, No. 1, Braz., tanks lb .18 - —
Sulfonated, 50%, dms., works lb .15 - .15¼
75%, dms., works lb .19 - .19½
Castor oil acids, dehydrated, dms. lb .41¼- .43¼
Split, dms. ..... lb .33¼- .34¼
Castor pomace, bgs., c.l., works ton 35.00 - —
Castoreum, nat., cns. ..... lb 5.25 - —
Syn., cns. ..... lb 9.00 - —
Catechol, CP, cryst., fib., dms., works lb 2.17½- —
Resub., dms., works lb 4.29½- —
Catnip, leaves, Southern, bls lb. Nominal.
Caustic potash (see Potash, caustic).
Caustic soda (see Soda, caustic).
Cedarleaf oil, USP XIII, cns., dms. lb. 3.25 3.50
Cedarwood oil, cns., dms. ..... lb 1.00 - —
Celery seed, French, bgs. ..... lb .37 - —
Indian, bgs. ..... lb .19 - —
Cellulose acetate, flake, powd., bgs., t.l., dlvd. E lb .36 - .51
Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., dlvd. E lb .545 - .555
27% butyryl content, bgs. dlvd. E lb .595 .605
38% butyryl content, bgs. dlvd. E lb .545 .555
38% butyryl content, half-second, bgs., dlvd E lb .545 - .555
50% butyryl content, bgs. dlvd. E lb .585 - .595
Cellulose gum, methyl (see Methyl Cellulose).
Cellulose gum, pure, high vis., bgs., 23,000-lb. lots or more works, frt alld lb .57 - —
bgs., smaller lots, same basis lb .59 - —
Cerium hydrate, 74% (CeO), fib. dms., 100-lb. lots or more lb 1.40 - —
77% CeO, fib. dms., 100-lb. lots or more lb 1.74 - —
Cerium oxalate (see Rare earth oxalate).
Cerium oxide, optical grade, bgs., 50-lb. lots or more, dlvd. lb 1.85 - 1.90
bgs., smaller lots, dlvd. lb 2.15 - —
Cetyl alcohol, NF, fib cns., c.l., t.l., dlvd E lb .41½- —
fib, cns., l.c.l., same basis lb .43½- —
tanks, same basis lb .39 - —
Extra, cns., c.l., t.l., dlvd. E lb .48½- —
fib, cns., l.c.l., same basis lb .50½- —
tanks, same basis lb .46 - —
Chalk (see Calcium carbonate).
Chamomile, flowers, Hungarian, lb. .85 - 1.00
Roman, cs. ..... lb. 1.50 - 1.75
Chamomile oil, blue, Hungarian, bots lb 350.00 - —
Charcoal, activated, NF, fib dms., c.l., works lb .34 - —
fib, dms., 5-ton lots, works lb .35 - .35¼
fib dms., smaller lots, works lb .36 - .59
Charcoal, black (see Charcoal, activated).
Charcoal, bone (see Bone black).
Charcoal, hardwood, lump, bulk, c.l., f.o.b. plant ton 55.00 - —
briquets, bulk, c.l., f.o.b. plant ton 80.00 - —
5-lb. paper bgs., c.l., same basis ton 106.00 - —
20-lb. paper bgs., c.l., f.o.b. plant, ton 90.00 - —
40-lb. paper bgs. c.l. same basis ton 86.00 - —
Chenopodium oil, NF, cns. ..... lb 4.75 - 5.00
Chicago acid, paste, bbls., frt. alld. lb 3.21 - —
Chinawood oil (see Tung oil).
Chloral, tech., 94% min., dms., c.l., works lb .43 - —
dms., l.c.l., works lb .44 - —
tanks, multiple units, 5 cars, dms., l.c.l., works lb .21 - —
Chloral hydrate, USP, jars, 1,000-lb. lots lb 1.00 - —
jars, 500-lb. lots ..... lb 1.03 - —
jars, 100-lb. lots or less ..... lb 1.05 - —
Chlordan, agricultural, dms., c.l., frt alld lb .65 - —
dms., l.c.l., 5,000-10,000-lb. lots, frt alld lb .66 - —
Chlordan, clarified, dms., c.l., frt. alld lb .69 - —
dms., l.c.l., 5,000-10,000-lb. lots, frt alld lb .70 - —
Chlorinated paraffin, 40%, dms., c.l., frt. alld lb .15 - —
dms., l.c.l., 10 dms or more, same basis lb .16 - —
70%, dms., c.l., same basis lb .18½- —
dms., l.c.l., 10 dms. or more, same basis lb .19½- —
Chlorinated rubber, 5, 10, 20 cps., ctns., c.l., works lb .60 - —
ctns., l.c.l., works lb .61 - —
125 cps., ctns., c.l., works ..... lb .70 - —
300 cps., ctns., c.l., works ..... lb .80 - —
Chlorine, liq., cyls., c.l., works, frt. equald lb .11 - —
cyls., l.c.l., Metropolitan area lb .12½- .13¼
tanks, single units, works, frt. equald 100 lbs. 3.25 - —
tanks, multiple units, 5 cars, works, frt. equald 100 lbs. 4.15 - —
tanks, multiple units, 4 cars, same basis 100 lbs. 4.35 - —
tanks, multiple units, 2 cars, same basis 100 lbs. 5.35 - 5.85
tanks, multiple units, 1 car, same basis⅝ 100 lbs. 6.25 - 7.25
Chloroacetic acid, mono, flake, 99%, purif., dms., c.l lb .23½- .25½
dms., l.c.l. lb .24½- —
tech., flake, 96-97%, dms., c.l., dms., l.c.l., frt. equald lb .20 - —
frt. equald lb .19 - —
2-Chloro-4-aminotoluene, tech., liq., dms., frt. alld lb 1.03 - —
4-Chloro-2-aminotoluene, fused, bbls. lb 1.38 - —
6-Chloro-2-aminotoluene, tech., liq., dms., frt. alld lb .66 - —
m-Chloroaniline, dms., c.l., frt. alld. lb .75 - —
dms., l.c.l., same basis lb .77 - —
tanks, same basis lb .73 - —
o-Chloroaniline, dms., c.l., frt. alld. lb .52 - —
dms., l.c.l., same basis lb .54 - —
tanks, same basis lb .50 - —
p-Chloroaniline, dms., c.l., frt. alld. lb .77 - —
dms., l.c.l., same basis lb .79 - —
o-Chlorobenzaldehyde, dms., t.l., works lb 1.05 - —
dms., l.t.l., same basis lb 1.20 - —
p-Chlorobenzaldehyde, dms., l.c.l., works lb 1.95 - —
o-Chlorobenzoic acid, fib. dms., t.l., works lb 1.10 - —
fib. dms., smaller lots, works lb 1.25 - —

p-Chlorobenzoic acid, fib. dms., 2,000-lbs. or more, works. lb. 2.25 • —
fib. dms., less than 2,000-lbs., same basis. lb. 2.30 • —
Chloroform, tech., dms., c.l., dlvd. E. lb. .18 • —
dms., l.c.l., same basis. lb. .19 • —
tanks, same basis lb. .17 • —
Chloroform, USP, dms., c.l., dlvd. lb. .27 • —
dms., l.c.l., dlvd. lb. .30 • —
tanks, minimum 4,000 gals. dlvd. lb. .25 • —
2-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis. lb. .90 • —
Powd., dlvd. E., 100% basis. lb. 1.00 • —
4-Chloro-2-nitroaniline, powd., dlvd. E. lb. .86 • —
4-Chloro-2-nitrophenol, tech., paste, dms., frt. alld. lb. .75 • —
4-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld lb. .99 • —
6-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld. lb. .20½- —
o-Chlorophenol, dms., c.l., frt. equald lb. .37 • —
dms., l.c.l., same basis lb. .38 • —
p-Chlorophenol, dms., c.l., frt. equald lb. .37 • —
dms., l.c.l., same basis lb. .38 • —
Chloropicrin, coml., cyls., 180 lbs., frt alld lb 1.07 • —
cyls., 100 lbs., same basis lb. 1.08 • —
cyls., 50 lbs., same basis lb. 1.14 • —
Chlorosulfonic acid, dms., c.l., frt. equald lb. .0465- —
dms., l.c.l. frt equald lb. .0515- —
tanks, frt equald lb. .0415- —
Chlorosulfonic acid, in stainless steel dms ½c per lb higher
o-Chlorotoluene, tech. dms., t.l., works lb. .37 • —
dms., l.c.l., t.t.l., same basis lb. .38 • —
Choline bitartrate, 100-lb. dms., frt. equald. lb. 1.25 • —
Choline chloride, 100-lb. dms., frt. equald lb. 1.25 • —
Choline dihydrogen citrate, 100-lb. dms., frt. equald. lb. 1.25 • —
Chrome green, CP, dark, light, medium blue content, 1-15%, bbls. dlvd E of Rockies, lb. .43 • —
blue content, 16-30%, bbls., same basis lb. .44 • —
medium blue content, 41-45% bbls., same basis lb. .44 • —
blue content, 45-49%, bbls., same basis lb. .45 • —
Chrome green, reduced color 25%, bbls., same basis lb. .20 • —
Chrome green prices 1c higher W of Rockies.
Chrome orange, CP, bbls., dlvd. E of Rockies lb. .35 • —
Chrome orange prices 1c higher W of Rockies.
Chrome yellow, CP, bbls., dlvd E. of Rockies lb. .35 • —
Chrome yellow price 1c. higher W of Rockies.
Chromic acid, 99¾%, dms., c.l., works, frt. equald. lb. .29½- —
dms., l.c.l., dlvd. N. Y. Metropolitan area lb. .30 • .31
Chromic acid, NF (see Chromium trioxide).
Chromium acetate, soln., 7½%, dms., 500-2,000-lb lots, works. lb. .10 • —
Chromium fluoride, bbls., works lb. .51 • .52
Chromium oxide, hydrated, bbls., fib. dms., c.l., frt. alld. lb. 1.20 • —
Pure, bgs., c.l., frt. alld. lb. .44½- —
bgs., l.c.l., same basis. lb. .45¼- —
Chromium trioxide, NF, bots. lb. 1.15 • —
Cinchona bark, NF, red, broken, bgs lb. .25 • —
NF, yellow, broken, bgs. lb. .35 • .40
Cinnamic acid, refd., bots. lb. 2.50 • 3.50
Cinnamic alcohol, bots. lb. 1.50 • 1.60
Cinnamic aldehyde, dms. lb. .80 • 1.00
Cinnamon, Ceylon, No. 2, bgs. lb. .53 • —
Ceylon, No. "0000," bgs. lb. .73 • —
Cinnamon bark oil, bots. lb. 48.00 • 56.00
Cinnamon leaf oil, crude, dms. lb. 1.60 • 2.00
USP, (Cassia), cns., dms. lb. 8.50 • 13.50
Citral, CP, bots. lb. 3.60 • 4.00
Extra, bots. lb. 3.60 • 5.00
Syn., dms. lb. 7.25 • 7.40
Citric acid, USP, anhyd., fine gran., bgs., dms., c.l lb. .29½- .30
bgs., dms., 10,000-lb. lots, 1 shipt lb. .30 • .30½
bgs., dms., smaller lots lb. .30½- .31
Citric acid, USP, hydrous, fine gran., bgs., dms., c.l. lb. .27½- .28
bgs., dms., 10,000-lb. lots, 1 shipt lb. .28 • .28½
bgs., dms. smaller lots lb. .29 • .29½
Powdered citric acid ½c. per lb. higher.
Citronella oil, Ceylon, dms. lb. 1.00 • —
Java-type, dms. lb. 1.15 • —
Citronellal, bots., dms. lb. 1.40 • 1.60
Citronellol, bots., dms. lb. 1.90 • 2.50
Citronellol, synthetic, dms. lb. 1.70 • —
Civet, artif., bots. lb. 13.75 • 15.00
Nat., bots. oz. 8.50 • 15.00
Clay, ball, dom., airfloated, bgs., c.l., Tenn ton. 17.50 • 21.50
crushed shed moisture, bulk, c.l., Tenn. ton. 8.00 • 11.25
imp., airfloated, bgs., c.l., Atl. port net-ton. 43.00 • 47.00
lump, bulk, Atl. port net-ton. 31.50 • 37.50
Clay, China, dom., dry-grd., airfloated, 99%, 325 mesh, Georgia, bgs., c.l., works. ton. 11.00 • 17.00
Georgia, bgs., l.c.l., works. ton. 13.50 • 22.50
imp., white, lump, bulk, c.l., ex-dock, Philadelphia, Port land, Me. long-ton. 23.00 • 35.00
white, powd., bgs., c.l., ex dock. net-ton. 50.00 • —
bgs., l.c.l., ex whse net-ton. 60.00 • 70.00
Cleaners naphtha, petroleum, 105°F Flash, tankcars, New Jersey and New York gal. 18 • —
Group 3 gal. .12875- —
Houston, Texas gal. .145 • —
140°F Flash, tankcars, New Jersey or New York gal. .205 • —
Group 3 gal. .154 • —
Houston Texas gal. .17 • —
Cleve's acid, tech., mixed, solid, dms., frt. alld lb. 1.05 • —
1.6, tech., solid, dms. frt. alld lb. .77 • —
1.7, tech., dms. frt alld. lb. 2.20 • —
Clove bud oil, USP, dms. lb. 2.65 • —
Zanzibar, bgs. lb. .41 • —
Clove bud oil, USP, dms. lb. 2.70 • 3.60
Clove leaf oil, crude, dms. lb. 1.25 • —
CMC, crude, 96.4% low or medium vis bgs., 23,000 lbs., dlvd. E., 100% basis lb. .40 • —
96.4% low, or medium vis., bgs., less than 23,000 lbs., dlvd. E., 100% basis lb. .42 • .50
65%, low or medium vis., bgs., c.l., dlvd. E., 100% basis lb. .40 • —
l.c.l., dlvd. E., 100% basis lb. .42 • 1.00
purif., high vis. (see Cellulose gum).

CMC, standard, low or medium vis., bgs., 23,000 lbs. works, frt. alld lb. .57 • —
bgs., smaller lots, same basis. lb. .59 • 1.00
CMC prices W. of the Rockies are 2c. per lb. lower and are on a works basis.
Coaltar, crude, resale for soln., tanks, works gal. .17 • —
Refd., resale, indust., dms., c.l., ex whse gal. .35 • —
dms., l.c.l., ex whse gal. .39 • —
tanks, works gal. .20½- —
Coaltar pitch, aluminum, bulk, works. ton. 44.00 • —
Carbon and indust., bulk, works. ton. 42.00 • —
Core, bulk, works ton. 40.50 • —
Fiber, bulk, works ton. 48.00 • —
Roofing, 140-155°F., Federal Specification RP-381 Type I tanks, works ton. 41.00 • —
Cobalt acetate, 23.1% Co., dms., dlvd lb 1.04 • —
Cobalt blue, genuine, 250 lb. bbls., dlvd E of Rockies lb. 4.90 • —
Cobalt blue prices 1c. higher W. of Rockies
Cobalt blue, imitation (see Ultramarine blue).
Cobalt carbonate, 48% Co., powd., bgs., dlvd lb. 1.45 • —
Cobalt chloride, 24.2% Co., dms., dlvd lb. .93 • —
Cobalt hydrate, 60-61% Co., dms., dlvd lb. 1.97 • —
Cobalt linoleate, fused 8½% Co., dms lb. .71½- —
Liq., 6% Co., dms lb. .57½- —
Cobalt metal, 99% dms., f.o.b. carrier lb. 1.50 • —
Cobalt naphthenate liq. 6% Co., dms., dlvd lb. .48¾- —
Cobalt nitrate 20.1% Co., bbls. dlvd. lb. .75 • —
Cobalt oxide, black, ceramic grade, 72½ 73½% Co., kgs., dlvd E of Mississippi R. lb. 1.15 • —
70-71% Co kgs. same basis lb 1.12 • —
Cobalt oxide prices W of Mississippi R. 3c. per pound higher
Cobalt phosphate, powd., 32.1% Co., dms., dlvd lb. 1.35 • —
Cobalt resinate, fused, 3% Co., dms lb. .38½- —
Cobalt sulfate, cryst., 21% Co., dms., dlvd lb .64 • —
Monohydrated, 33% Co., dms., dlvd lb 1.09 • —
Cobalt tallate, 6% Co., dms. dlvd. lb. .44 • —
Cocaine, USP cns., 100-oz. lots, f.o.b. works oz. 17.50 • —
Cocaine hydrochloride, cns. 100-oz. lots f.o.b. works oz. 13.75 • —
Cocillana bark, bls. lb. .18 • .20
Cocoa butter, bgs. lb. .57 • .62
Coconut oil, crude, tanks, New York lb. .13¼- —
tanks, Pac. coast lb. .11⅜- —
Refd., deodorized, dms. lb. .19 • .20
Coconut oil acids, dist., dms. lb. .21½- .24
tanks lb. .19 • —
double dist. (stripped), dms. lb. .22½- .25
tanks lb. .20 • —
Cod oil, dms. spot lb. .08⅜- .08½
Codeine, NF, cns., 100-oz. lots oz. 13.25 • —
Codeine hydrochloride cns., 100-oz lots oz. 11.75 • —
Codeine phosphate, USP, cns., 100-oz lots oz. 10.25 • —
Codeine sulfate, USP cns., 100-oz lots oz. 10.75 • —
Codliver oil, USP, dms gal 1.40 • 1.70
Cohosh root, black, bls lb 20 • 25
Blue, bls lb 20 • 25
Colchicine, USP, bots oz. 29.00 • —
Colchicum root, bls lb .35 • 45
Colchicum seed, bgs lb 75 • .80
Collodion, USP dms lb 32½ • —
USP flexible dms lb .34 • —
Colocynth pulp, bls. lb 75 • —
Colombo root, bls lb 16 • 18
Condurango bark, bls lb 18 • 20
Congo copal gum, No 1, bgs lb 26 • 27
No 2, bgs lb 23 • 25
No. 3, bgs lb .21 • .24
Copaiba balsam, cns., dms lb. .65 • 1.10
Copaiba oil, cns lb 1.35 • 2.00
Copper acetate, bbls., c.l., works lb 53 • —
bbls., l.c.l. works lb 54 • —
Copper carbonate, 55%, dark dense, works lb. 34.85 • —
bgs., l.c.l., works lb. 36.35 • —
Copper chloride, cupric, anhyd., dms., works lb. .44 • .44½
cryst., dihydrate, dms., works. lb. .30 • .30½
cryst., dried., dms., works lb. .38¼- .38¾

HOW HERCULES HELPS...

SOLVE CONCRETE PROBLEMS

Construction men are quickly acknowledging the fact that concrete treating compounds based on Parlon® chlorinated rubber provide these advantages. They reduce construction costs because they allow the cured concrete to be painted, bonded, or directly tiled over without the necessity of removing the treating compound. These products also eliminate the use of burlap, plastic sheeting, and other coverings that were previously needed to prevent evaporation and allow the fresh concrete to cure properly. Whether the concrete construction is bridges, building construction, landing strips, or highways, you will have better performance where compounds based on Parlon chlorinated rubber are used.

YOU CLEAN AND DISINFECT more quickly and easily. Pine oil cleaners are known to be universal in their ability to clean and deodorize. When used in sufficient quantity, pine oil becomes an efficient disinfectant as well as a cleaning agent. Today, many manufacturers of these cleaners rely on this wonder working ingredient, Yarmor® pine oil, to make their products more reliable and widely acceptable not only in the home, but also in industry.

HERCULES POWDER COMPANY INCORPORATED
Hercules Tower, 910 Market Street, Wilmington 99, Delaware
CHEMICAL MATERIALS FOR INDUSTRY
681-1
HERCULES

Copper Chloride—Dimethyl Ethanolamines

Copper chloride, cuprous, dms., works lb. .39¼- .42¼
Copper cyanide, tech., dms 20,000-lb lots or more lb .609 —
dms. 1,000-lb lots or more lb .619 —
dms smaller lots lb .639 .65
Copper gluconate dms lb 3.20 —
Copper hydrate dry dms. c.l., frt. E of Miss lb. .52½- —
dms., l.c.l., same basis lb. .53 - —
Copper metal atomized divd Valley, basis lb. .30 - —
Copper naphthenate 8% Cu dms frt alld lb .26½ —
Copper nitrate tech cryst. dms., works lb .30¾ .32¼
Copper oleate solid 9% Cu dms., works lb 45 —
Copper oxide black bbls 100-5,000-lb lots, works lb. .46¼- —
Copper oxide, red 97% USP type I bbls. 100-5,000-lb lots lb. .47½- —
90% USP type II, bbls 100-5,000-lb lots or more, works lb. .46½- —
Copper quinolinolate 18% Cu dms., ton lots lb 4.25 —
10% active quinolinolate dms lb 1 14 1.15
Copper resinate precip dms frt alld lb. .47 - —
Copper sulfate CP, gran. dms., works lb 1885 —
Cryst. 99% bgs., c.l. works 100 lbs.12.25 - —
bgs., l.c.l., works 100 lbs.12.75 -15.25
Copper sulfate, monohydrated, 35%, dms., c.l., works 100 lbs.23.00 - —
dms., l.c.l., works 100 lbs.23.75 - —
Tribasic distributors bgs., c.l works 100 lbs.29 60 - —
bgs., l.c.l. works 100 lbs.31 10 - —
Copper undecylenate, dms lb 2.75 - —
Copra, Atl., Gulf ports, c.i.f. ton.165.00 - —
Pac. ports, c.i.f ton.160.00 - —
Coriander oil, USP, bots. lb 7.25 8.75
Coriander seed, Moroccan, bgs lb. .20 - —
Rumanian, bgs. lb. .18 - —
Yugoslavian bgs lb 08½ —
Corn oil, crude, tanks, works lb. .15 - —
Foots (soapstock) acid, tanks, New York lb. .05¼- —
Refd., salad, dms. lb. .20¾- .21
tanks lb. .14¼- —
Corn oil acids, dist., dms lb. .14¾- .17¼
tanks lb. .12¼- —
Corn sugar, tanners chipped, paper bgs. c.l. 60,000 lbs min. 100 lbs 7.30 - —
paper bgs. l.c.l 100 lbs 7 45 - —
Corn syrup, 43° Be., tanks, dlvd. N Y. 100 lbs. 6.30 - —
non-ret dms., c.l., same basis. 100 lbs. 7.23 - —
Corrosive sublimate (see Mercuric chloride)
Cortisone acetate USP bots. kilo or more gram .95 - 1.75
oz 6.00 —
Costus oil bots
Cottonseed meal 41% bgs., Mem ...lis l. 56.50 - —
Cottonseed oil, crude, tanks, South, East lb. .10½- .10¾
tanks, Valley lb. .10½- —
tanks, Texas, Lubbock lb. .10½- —
tanks, Texas, Waco lb. .10½- —
Foots (soapstock) acid, 95%, tanks, Texas, Waco lb. .04 - —
Refd., salad, dms. lb. .16¼- .16½
tanks, salad, dms. lb. .14¼- —
Cottonseed oil acids, dist., dms lb. .14¾- .17¼
tanks lb. .12¼ —
Coumarin NF cryst. dms lb 3.30 3 40
Cramp bark NF bls lb 90 1.00
Cream of tartar (see Potassium bitartrate)
Creosote carbonate NF bots, chys., lb 3.05 3.26
Creosote coaltar, crude, tanks, works frt adjusted gal .24 —
Crude, soln 80% tanks, works. gal 226 —
Refd, dms., c.l., works gal. 50 —
dms., l.c.l. same basis gal 62 -
tanks same basis gal 38 —
West Coast creosote prices computed on a basis of 24c per gallon for straight oil and 20c per gallon for coaltar
Creosote beechwood, chys., dms., f.o.b. works, divd in Metropolitan area lb 1 72 1 77
Hardwood NF chys. dms same lb. basis lb 1.42 1.47
Pinewood dms. incl. c.l., works. lb. .0611- —
dms. incl., l.c.l., works lb. .0884- —
dms. incl., l.c.l. ex whse, New York lb. .0795- —
tanks, works lb. .0511- —
Creosote oil (see Creosote coaltar).
Cresol, tech 90% below 204° C., dry above 207° C., wide distillation range non-ret. dms. c.l. frt alld lb. .16½- —
non-ret dms. l.c.l., same basis lb. .17½ —
tanks, same basis lb. .145 —
Cresol, USP, 50% 204°C. dry above 207°C., wide distillation range non-ret dms. c.l., same basis lb. .18 - —
non-ret dms. l.c.l. same basis, lb. .19 - —
tanks, same basis lb. .16 - —
m-Cresol, 95-98% dms. c.l., works, lb. .60 - —
dms. l.c.l. works lb. .61 - —
m-p-Cresol, 5-95% 3 C., dms., c.l., frt equald lb. .18 - —
dms., l.c.l. same basis lb. .19 - —
tanks, same basis lb. .16 - —
2,97% 2°C. dms. c.l. frt equald, lb. .22 - —
dms., l.c.l. same basis lb. .23 - —
tanks same basis lb. .20 - —
o-Cresol 30.5°C. m.p and over, ret., dms c.l. frt equald lb. .17 - —
ret dms. l.c.l., same basis lb. .18 - —
tanks, same basis lb. .15 - —
30° 30.49°C m.p., dms., c.l., frt. equald lb. .16½- —
ret. dms., l.c.l., same basis lb. .17½- —
tanks same basis lb. .14½- —
Cresol, 29°-29.9°C. m.p., dms., c.l., frt equald lb. .16 - —
ret dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .14 - —
25° 28°C m.p., dms. c.l., frt. equald lb. .15 - —
ret dms. l.c.l., same basis lb. .16 - —
tanks same basis lb. .13 - —
p-Cresol 98% dms. c.l., divd lb. .52 - —
dms., l.c.l., divd lb. .53 - —
tanks, divd lb. .49 - —
2,3-Cresotic acid dms. ton lots, works lb. 70 - —
dms. smaller lots, works lb. 72 —
p-Cresyl methyl ether cns lb. 1.80 2.05
Cresylic acid, coaltar, dom., meta-para content above 25%, resins and tricresyl phosphate grades dms., c.l., t.l., frt equald gal. 1.35 - —
dms., l.c.l., same basis gal. 1.40 - —
tanks, same basis gal. 1.15 - —
metapara content 25% or less, dms. c.l., t.l., same basis gal. 1.20 - —
dms., l.c.l. same basis gal 1.25 - —
tanks, frt. equald gal. 1.00 - —
Cresylic acid, coaltar, imp., meta-para content 25% or less, f.o.b. works, frt. equald, to competitive points, 50 dms. or more. gal. 1.03½- —
less than 50 dms., same basis gal. 1.05 1.15
tanks, same basis gal. 1.00 —
Crotonaldehyde, 91-93%, dms., l.c.l., works lb. .25 - —
Crotonic acid, dms., 200 lbs. or more, l.c.l., divd lb. .36 - —
Cryolite, nat., undust., bgs., c.l., works 100 lbs.13.00 - —
bgs., l.c.l. works 100 lbs.14.25 - —
Cube root, powd., 5% rotenone, bgs., t.l., works lb. .21 - —
bgs. l.t.l., works lb .22 - —
Cubeb berries, NF, bgs lb 1.00 - —
Powd., cs. lb 1.15 - —
Cubeb oil, cns lb. 9.00 -12.00
Cumene, dms., c.l., works lb. .12 - —
dms., l.c.l., works lb. .14 - —
tanks, works lb. .11 - —
Cumin seed, Iranian, bgs. lb. .20 - —
Moroccan, bgs. lb. .36 - —
Turkish, bgs. lb. .19 - —
Cumin seed oil, bots., cns lb. 15.50 -17.00
Cyanamide, fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont., contract. ton.57.00 - —
Fertilizer, pulv. 21% N, bgs., works unit-ton 2.85 - —
Cyanamide, fertilizer, indust. grade bgs., c.l., works ton 75.00 - —
bgs., l.c.l., works ton 96 00 - —
Indust grade 6-16 mesh, dms. c.l., works ton.120.00 - —
dms. l.c.l., works ton 140.00 - —
Cyclohexane, 99%, tech., dms., c.l., divd E of Rockies gal 1.02 - —
dms. l.c.l. same basis gal. 1.10 - —
dms., c.l. divd W of Rockies gal. 77 - —
dms., l.c.l., same basis gal. .85 - —
tanks, works gal. 55 - —
98% tech. 40-dm. lots or more, f.o.b works gal. .56 - —
5-39 dms. same basis gal. .60 - —
tanks, same basis gal. .36 - —
Cyclohexanol, tech., dms., c.l., works, frt alld E lb. .28½- —
dms. l.c.l. works, same basis. lb. .29½ —
tanks, works, same basis lb. .26 —
Cyclohexanone, tech., dms., c.l., works lb. .33½- —
dms., l.c.l. works lb. .34½- —
tanks, works lb. 31 —
Cyclohexylamine, tech., dms., c.l., works lb. .49 - —
dms., l.c.l., works lb. .50 - —
tanks, works lb. .47 - —
Cypress oil bots. lb 5.30 -

D

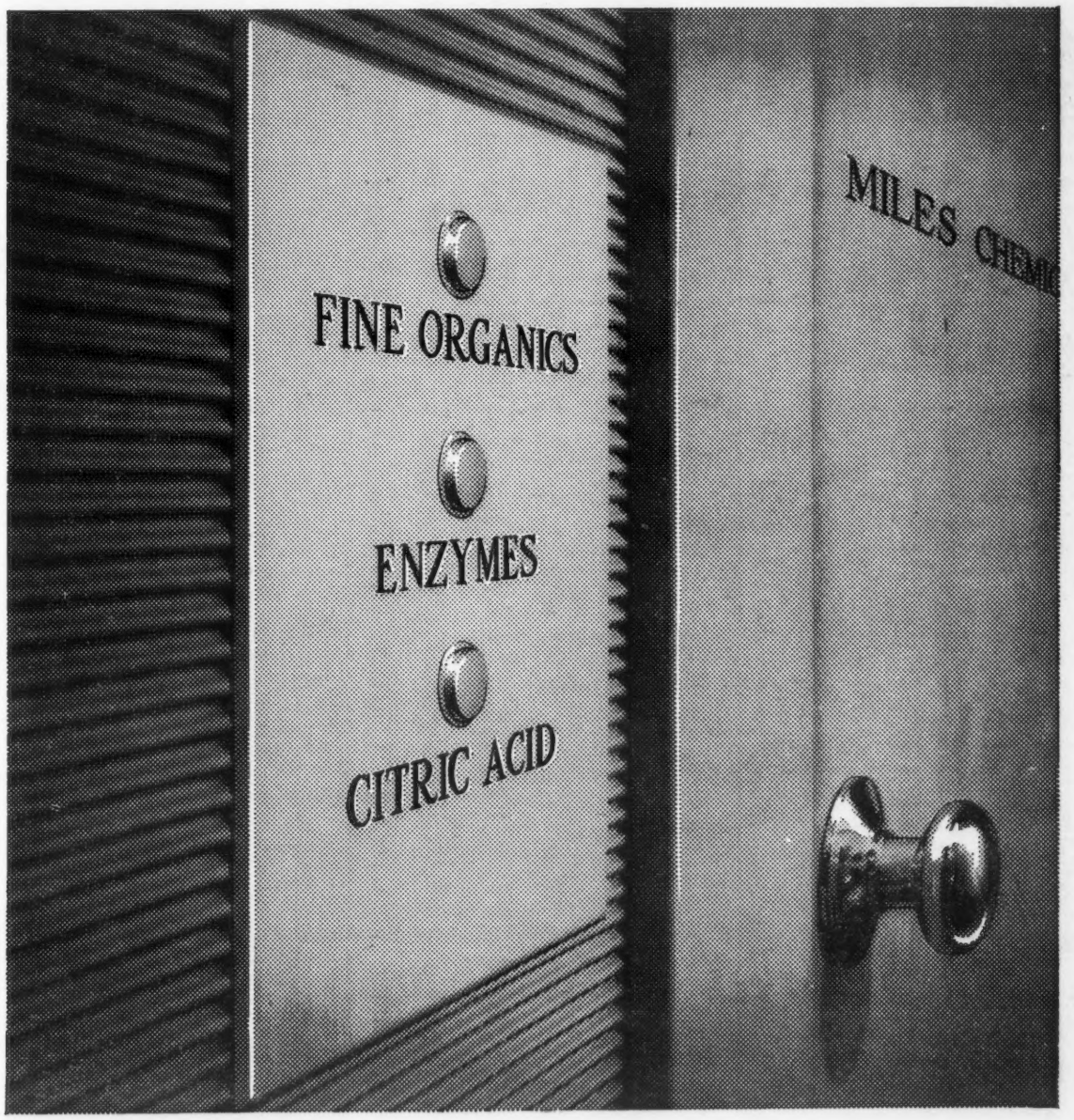
2,4-D tech. bgs. dms. c.l., works, frt equald lb 40 —
bgs. dms. l.c.l., same basis lb .45 49
2,4-D butyl ester dms. c.l., works. lb. 43 —
dms., l.c.l. same basis lb. 48 .52
tanks, same basis lb. 42 —
2,4-D isopropyl ester, dms., c.l., works lb. 43 —
dms., l.c.l. works lb. 48 52
tanks, works lb. 42 —
Dammar gum Batavia, A E. cs lb No stocks.
East India Batu hold bgs lb. .15½ 18
nubs and chips, bgs lb. .10 .11
black hold bgs lb. .15½ .18
nubs and chips, bgs. lb. .12¼ .13½
unscraped bgs. lb. .13 .14½
pale chips, bgs. lb .15 .17
pale nubs, bgs. lb 20¾ .24
Siam cs lb. .31½ .34
Singapore, No. 1, bgs lb. .35 - .40
No 2, bgs. lb. .29 .32
dust, bgs. lb. 18 20
No 3, bgs. lb. No stocks.
Dandelion root, bls lb. .35 40
DDD, tech., flake, grd., fib dms., c.l., works lb. .45 47
fib dms., l.c.l., works lb. .46 .48
DDT, flake or pump, bgs., c.l., divd lb. .23 - —
bgs. smaller lots, same basis. lb. .25 - —
fib dms. c.l., same basis lb. .24 - —
fib dms., smaller lots, same basis lb 26 - —
Powdered DDT 1c. per pound higher.
DDVP (see Dimethyl dichlorovinyl phosphate)
i-Decanol, tech., dms., c.l., divd E. lb. .43½- —
dms., t.c.l., divd. E. lb. .45½- —
tanks, divd E lb. .41 —
Decyl alcohol, mixed isomers, dms., c.l., divd lb. .23½- —
dms., l.c.l., divd. lb. .25 - —
tanks, divd. lb 21 —
Perfume grade, bots. lb 1 00 - 2.00
Decyl alcohol normal (see i-Decanol)
Deertongue leaves, bls. lb .55 - .60
Defluorinated phosphate, feed grade 14% P paper bgs. c.l., t.l., Tupelo, Miss ton.52.00 - —
18% P, paper bgs., c.l., Texas City ton.61.25 - —
paper bags, c.l., works, Miss. ton.66.00 - —
18% P paper bgs., c.l., t.l works, Houston, Tex. ton.66.35 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l prices
Degras, common (15-17% free fatty acid), 400-lb dms lb. .12 - .14
Neutral (over 2% free fatty acid), 400 lb dms lb. 13 - —
Denatured alcohol, ethyl, CD-13, CD-14, CD-17, dms., c.l., divd E of Rockies, gal. .69½- —
dms., l.c.l., same basis gal. .74½ .80½
tanks, divd, same basis gal. .53½ —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, proprietary solvent, dms., c.l., divd E of Rockies gal. .72 —
dms., l.c.l. same basis gal. 77 .83
tanks, same basis gal. 56 —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, SD1, dms., divd E of Rockies gal. .70½ —
dms., l.c.l same basis gal. .75½ .81½
Denatured alcohol, ethyl, SD1, tanks, same basis gal. .54½- —
SD2B, dms. c.l. divd. E of Rockies gal. .69 —
dms., l.c.l., same basis gal. 74 .80
tanks, same basis gal. .53 —
SD3A, dms., c.l., divd. E. of Rockies gal. .68 —
dms. l.c.l. same basis gal. 73 .79
tanks, same basis gal. .52 —
Denatured alcohol, ethyl, SD23A, dms., c.l., divd. E. of Rockies gal. .70½- —
dms., l.c.l., same basis gal. .75½- .81½
tanks, same basis gal. .54½- —
Denatured alcohol, ethyl, SD23H, dms., c.l., divd. E. of Rockies gal. .71 - —
dms., l.c.l., same basis gal. .76 - .82
tanks, same basis gal. .55 - —
Denatured alcohol, SD29, dms., c.l., divd. E. of Rockies gal. .69½- —
dms., l.c.l., same basis gal. .74½- .80½
tanks, same basis gal. .53½- —
SD30, dms., c.l. divd. E. of Rockies gal. .68 - —
dms., l.c.l., same basis gal. .73 - .79
tanks, same basis gal. .52 - —
Denatured alcohol, ethyl, SD-35A, dms., c.l., divd. E. of Rockies gal. .71 - —
dms., l.c.l., same basis gal. .76 - .82
tanks, same basis gal. .55 - —
Denatured alcohol, ethyl, SD-40, dms., divd, E. of Rockies gal. .70½- —
dms., l.c.l., same basis gal. .75½- .81½
tanks, same basis gal. .54½- —
For anhyd. alcohol on above formulas prices are 7c. per gal higher.
West coast divd prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c. differential on tankcars is maintained.
d-Desoxyephedrine hydrochloride, dms lb. 15.00 -17.00
dl-Desoxyephedrine hydrochloride, dms lb. 6.50 - —
Dextrin, corn, gum, paper bgs., c.l., 100 lbs. 9.19 - —
100 lbs. 9.34 - —
canary dark, paper bgs., c.l. 100 lbs. 9.03 - —
paper bgs., l.c.l 100 lbs. 9.18 - —
indust grade, 6-16 mesh, canary light, paper bgs., c.l. 100 lbs. 8.93 - —
paper bgs., l.c.l. 100 lbs. 9.08 - —
white paper bgs., c.l. 100 lbs. 8.77 - —
paper bgs., l.c.l 100 lbs. 8.92 - —
Corn dextrin in cotton bgs. 15c. per 100 lbs higher
Dextrose, anhyd., comi., bgs., c.l. 100 lbs. 8.65 - —
bgs. l.c.l 100 lbs. 8.80 - —
Anhyd. special, aluminum foil lined fib. dms., 200-lb. dms 100 lbs.14.70 - —
100-lb dms. 160 lbs.15.20 - —
Hydrated, comi., bgs., c.l., ex whse 100 lbs. 7.45 - —
bgs. c.l., ex whse 100 lbs. 7.60 - —
USP dms lb. .19¾- —
Diacetone alcohol, acetone-free, dms., c.l., divd lb. .15½- —
dms., l.c.l., divd. lb. .17 - —
tanks, divd lb. .13 - —
Tech. dms. c.l., divd. lb. .15 - —
dms. l.c.l., divd. lb. .16½- —
tanks divd lb. .12½- —
Diacetyl, flavor grade, bots lb. 3.30 - 4.30
Di-sec-amyl phenol, dms., c.l., works lb. .32 - —
dms., l.c.l. works lb. .33 - —
tanks works lb. .29½- —
Di-tert-amyl phenol, dms., c.l., works lb. .32 - —
dms. l.c.l. works lb. .33 - —
tanks works lb. .29½- —
Diallylamine, dms., c.l., divd. lb. .98½- —
dms. l.c.l., divd. lb. 1.00 - —
tanks divd lb. .96 - —
o-Dianisidine dry, tech., fib. dms. lb. 2.00 - —
Dibenzyl sebacate dms., c.l., works. lb. .93 - —
dms., l.c.l., same basis lb. .94 - —
tanks, same basis lb. .91 - —
Dibromobenzene, bgs., 500-lb. lots. lb. .55 - —
2,6-Di-tert-butyl-p-cresol, feed grade, c.l., t.l., dms., divd. lb. .65 - —
t.t.l., dms., same basis lb. .68 - —
Food grade, c.l., t.l., dms., divd. lb. .65 - —
dms. t.t.l., same basis lb. .68 - 1.10
Tech., dms., c.l. t.l., divd. lb. .57 - —
dms., l.c.l., same basis lb. .60 - —
tanks, same basis lb. .54 - —
Dibutyl fumarate, dms., c.l., t.l., divd. E lb. .31½- —
dms., l.c.l., t.l., divd. E lb. .33 - —
tanks, divd E lb. .29 - —
Dibutyl maleate, dms., c.l., t.l., divd. E lb. .31½- —
dms., l.c.l., t.l., divd. E lb. .33 - —
tanks, divd E lb. .29 - —
Dibutyl phthalate, dms., c.l., divd. E lb. .31½- —
dms., l.c.l., same basis lb. .33 - —
tankcars, tanktrucks, 2,000 gals., same basis lb. .29 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .29 - —
Dibutyl sebacate, dms., c.l., works. lb. .67½- —
dms., l.c.l., works lb. .68½- —
tanks, works lb. .65½- —
Dibutyl tartrate, dms., works, frt. alld lb. .65½- —
Dibutylamine, dms., c.l., divd lb. .55½- —
dms., l.c.l., same basis lb. .57 - —
tanks, same basis lb. .53 - —
Dicapryl phthalate, dms., c.l., divd. lb. .28½- —
dms., l.c.l., divd. lb. .30 - —
tanks, divd. lb. .26 - —
Dicapryl sebacate, dms., c.l., works. lb. .63 - —
dms., l.c.l., works lb. .63½- .64
tanks, works lb. .61 - —
2,5-Dichloroaniline, dms., works lb. .83 - —
3,4-Dichloroaniline, tech., solid, tanks, frt. alld lb. .73 - —
o-Dichlorobenzene, dms., c.l., frt. alld, E lb. .12¾- —
dms., l.c.l., same basis lb. .13¾- —
tanks, same basis lb. .11 - —
p-Dichlorobenzene, dms., c.l., t.l., works, frt. alld, E lb. .12 - —
dms. 2,000 lbs or more, same basis lb. .14½- —
1,4-Dichlorobutane, dms., c.l., or t.l., works lb. .33½- —
dms., l.c.l., or t.l., works lb. .34 - —
tanks, works lb. .32 - —
Dichlorodiphenyltrichloroethane (see DDT).
2,2-Dichloroethyl ether, dms., c.l., t.l., divd. E lb. .15½- —
dms., l.c.l., t.l., same basis lb. .17 - —
tanks same basis lb. .13 - —
Dichloroisocyanuric acid, dms., c.l., t.l., frt equald lb. .65 - —
dms. l.c.l. same basis lb. .75 - —
Dichloropentanes dist., dms., c.l., works lb. .05 - —
dms., l.c.l., works lb. .06 - —
tanks works lb. 03 - —
Dichlorophenoxyacetic acid (see 2,4-D).
Dicyclohexylamine dms. c.l., works. lb. .54 - —
dms., l.c.l., works lb. .55 - —
tanks works lb. .52 - —
Dicyclohexyl phthalate, gran., fib. dms c.l. works frt alld. lb. .47½- —
fib. dms., l.c.l., same basis lb. .49 - —
Dicyclopentadiene, dms., c.l., f.o.b. works lb. .14½- —
dms., l.c.l., same basis lb. .14¾- —
tanks, same basis lb. .12 - —
Didecyl phthalate, dms., c.l., works. lb. .28½- —
dms., l.c.l., same basis lb. .30 - —
tankcars, tanktrucks, 2,000 gals. lb. .26 - —
tanktrucks, 1,000-1,999 gals, same basis lb. .26½- —
Dieldrin, dms., c.l., divd. lb. 1.85 - —
dms., l.c.l. divd. lb. 1.90 - —
Diethanolamine, dms., c.l., divd. E. lb. .27 - —
dms., l.c.l., same basis lb. .28½- —
tanks, same basis lb. .24½- —
Diethanolamine lauryl sulfate, dms., c.l., frt. alld lb. .27½- —
dms., l.c.l. frt. alld. lb. .28½- —
tanks, frt alld lb. .26½- —
Diethyl barbituric acid (see Barbital).
Diethyl carbonate dms. c.l., t.o.b. works lb. .47½- —
dms., l.c.l., same basis lb. .48½- —
tanks, same basis lb. .45 —
Diethyl ethanolamines, dms., c.l., divd lb. .69½- —
dms., l.c.l., divd. lb. 71 —
tanks, divd lb. .67 —
Diethyl oxalate dms., c.l., t.o.b. works lb. .42½- —
dms., l.c.l. same basis lb. .43½- —
tanks, same basis lb. .40 —
Diethyl phthalate dms., c.l., divd. lb. .27¼- —
dms., l.c.l., divd. lb. .29 - —
tanktrucks, 1,000-1,999 gals, same basis lb. .26½- —
tankcars, tanktrucks, 2,000-lb. lots, same basis lb. .26 - —
Diethyl sulfate dms., c.l., works lb. .19½- —
dms. l.c.l., works lb. .20¼- —
tanks, works lb. .17½- —
Diethyl thiourea dms., c.l., t.l., works lb. .58 —
dms. l.c.l. same basis lb. .59 - —
Diethyl toluamide, 90-95% meta isomer dms. c.l. t.l., works. lb 2.30 - —
5-44 dm. lots, works lb 2.35 - —
1-4 dm lots, works lb 2.40 - —
N,N-Diethyl-m-toluidine, tech., liq., tanks, frt alld lb. .83 —
Diethylamine dms. c.l. divd E lb. .52 —
dms. l.c.l., same basis lb. .53½ —
tanks same basis lb. 49½ —
N,N Diethylaniline dms., c.l., frt. alld lb. .57 —
dms., l.c.l., same basis lb. .58 —
tanks, same basis lb. 55 —
Diethylbenzene, 380 lb. dms., c.l., t.l., frt alld., Zone 1 lb. .17½- —
f.o.b., Zone 2 lb. .18½- —
dms., l.c.l., c.l., f.o.b. Zone 1 lb. .19½- —
f.o.b. warehouse points, Zone 2 lb. .20½- —
Diethylbenzene, tankcars, Zone 1 lb. .15 - —
Zone 2 lb. .16 - —
Zone 1 is East of the Rockies. Zone 2, West of the Rockies.
Di-2-ethylhexyl adipate (see Di-iso-octyl adipate).
Di-2-ethylhexyl phthalate (see Di-iso-octyl phthalate).
Diethylene glycol dms. c.l. divd E. lb. .17¾ —
dms. l.c.l. same basis lb. .19¼ —
tanks same basis lb. .15¼ —
Diethylene glycol diethyl ether, dms. c.l. works lb. .51½- —
dms. l.c.l. works lb. .52¼- —
Diethylene glycol monobutyl ether, c.l., dms., works lb. .30¾- —
dms. l.c.l. works lb. .32¼- —
tanks divd E lb. .28¼- —
Diethylene glycol monobutyl ether acetate, dms., c.l., works. lb. .30¾ —
dms., l.c.l. works lb. .31½ —
tanks divd E lb. .28¾ —
Diethylene glycol monoethyl ether, dms., c.l., divd lb. .22½- —
dms., l.c.l., divd lb. .24 - —
tanks divd E lb. .20 - —
Diethylene glycol monoethyl ether acetate, dms., c.l., works. lb. .27¼- —
dms., l.c.l., works lb. .28 - —
tanks, works lb. .25¼- —
Diethylene glycol monomethyl ether, dms., c.l., divd lb. .21 —
dms., l.c.l., divd lb. .22½- —
tanks, divd E lb. .18½- —
Diethylenetriamine, dms., c.l., divd, E lb. .44 —
dms. l.c.l. divd E. lb. .45½- —
tanks, divd E. lb. .41½- —
Diethylstilbesterol, USP, bots. 10-kilo lots kilo 100 00 147 50
bots. 1-kilo lot kilo 110 00 -152 50
Digitalis leaves USP dom. dms lb 1.25 —
Digitoxin USP bots gram 4 20 —
Diglycol laurate, dms., ton lots lb. .32½- —
Diglycol stearate, dms., t.l lb. .26 - —
Diglycolic acid bgs. c.l., t.l., works. lb. .15½- —
bgs. l.c.l., works lb. .16 - —
Dihexyl sebacate dms., c.l., works. lb. .66 - —
dms., l.c.l., works lb. .67 - —
tanks, works lb. .64 - —
Dihydrazine sulfate, dms., works lb. 1.10 - 1.25
Dihydrostreptomycin sulfate bulk. gram. .03 - —
1,2-Dihydroxy anthraquinone, dms., works lb 3.45 - —
2,2-Dihydroxy-5-5-dichloro-diphenyl methane, pure, dms lb 2.55 - —
Tech. dms., 20,000 lbs or more lb 1.11 - —
dms. 1,050 lbs to 20,000 lbs. lb 1.13 - —
dms. 150 lbs to 1,050 lbs lb. 1.15 - —
Di-isobutyl ketone dms., c.l. divd. lb. .17 - —
dms., l.c.l divd. lb. .18½- —
tanks divd lb. .14½- —
Di-isobutyl phthalate, dms., c.l., divd E. lb. .31½- —
dms. l.c.l., same basis lb. .32½- —
tanks, same basis lb. .29 - —
Di-isobutylene dms. c.l., divd. E lb. .10 - —
dms. l.c.l., divd E lb. .11½- —
tanks divd E lb. .08 - —
Di-iso-octyl phthalate, dms., c.l., works lb. .29 - —
dms., l.c.l., same basis lb. .30½- —
tanktrucks, 1,000-1,999 gals., works lb. .27 - —
tankcars, tanktrucks, 2,000 gals., works lb. .26½- —
Di-iso-octyl sebacate, dms., c.l., works lb. .62 - —
dms., l.c.l., works lb. .61¼- —
tanks, works lb. .60 —
Di-isopropanolamine, dms., c.l., divd. lb. .23¼- —
dms., l.c.l., same basis lb. .24¾- —
tanks, same basis lb. .20¾- —
Di-isopropylamine dms., c.l., divd. E of Rockies lb. .50½- —
dms., l.c.l., same basis lb. .52 - —
tanks, same basis lb. 48 - —
Dillweed oil, dcm., bots., dms lb. 5.25 - —
Dimethyl anthranilate, cns. lb 4.15 - —
Dimethyl dichlorovinyl phosphate, 55-gal dms., divd lb 3.50 - —
Dimethyl ethanolamines, anhyd., dms., c.l., divd lb. .78 - —
dms., l.c.l., divd. lb. .79½- —
tanks, divd. lb. .75½- —
70% dms. c.l. divd., 100% basis contained amines lb. .78 - —
dms., l.c.l. divd., 100% basis lb. .79½- —
tanks, divd., 100% basis lb. .75½- —

Dimethyl hydroquinone, dms. ....lb. 1.90 - 2.20
Dimethyl phthalate, dms., c.l., works..lb. .29¾- —
dms., l.c.l., works .....lb. .31¼- —
tanktrucks, 1,000-1,999 gals., same basis..lb. .27¾- —
tankcars, tanktrucks, 2,000 gals., same basis..lb. .27¼- —
Dimethyl sebacate, dms., c.l., works. lb. 1.31 - —
dms., l.c.l., works.....lb. 1.30 - —
tanks, works .....lb. 1.28 - —
Dimethyl sulfate, ret. dms., c.l., works. lb. .17½- —
ret. dms., l.c.l., works.....lb. .18½- —
tanks, works.....lb. .16½- —
Dimethyl sulfide, dms., c.l., works. lb. .18 - —
dms., l.c.l., works.....lb. .18½- —
tanks, works.....lb. .15 - —
Dimethylamine, 25% soln., dms., c.l., frt. equald, 100% basis lb. .38 - —
dms., l.c.l., frt. equald, 100% basis lb. .38½- —
tanks, frt. equald, 100% basis. lb. .28 - —
40% soln., dms., c.l., frt. equald, 100% basis lb. .35 - —
dms., l.c.l., frt. equald, 100% basis lb. .35½- —
lb. .28 - —
N,N-Dimethylaniline, dms., c.l., frt. alld lb. .28 - —
dms., l.c.l., same basis.....lb. .29 - —
tanks, same basis .....lb. .26 - —
N,N-Dimethylformamide, dms., c.l., t.l., works lb. .32½- —
dms., l.c.l., works .....lb. .33 - .34
tanks, works .....lb. .30 - —
2,4-Dinitroaniline, dms., frt. alld lb. .75 - —
Dinitroaniline orange toner, CP, bbls. dlvd E. of Rockies. lb. 1.61 - —
Dinitroaniline orange toner prices 1c higher W of Rockies.
m-Dinitrobenzene, 89°C., dms. lb. .26 - —
2,4-Dinitrochlorobenzene, crystallizing at 46½°C., dms., c.l., frt. alld. E lb. .17¼- —
dms., l.c.l. frt. alld. E. .....lb. .17¾- —
tanks, frt. alld. E. .....lb. .17 - —
2,4-Dinitrophenol bbls. .....lb. .41 - —
2,4-Dinitrotoluene, oil, dms. ....lb. .11 - —
Refd. 63°C dms. .....lb. .23 - —
Dioctyl adipate, dms., c.l., works lb. .42½- —
dms., l.c.l., works .....lb. .43½- —
tanks, works .....lb. .40 - —
Dioctyl phthalate, dms., c.l., frt. alld lb. .28½- —
dms., l.c.l., frt. alld.....lb. .30 —
tanktrucks, 1,000-1,999 gals., same basis..lb. .26½- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .26 - —
Dioctyl sebacate, dms., c.l., works. lb. .61¼- —
dms., l.c.l., works .....lb. .62¼- —
dms., l.c.l., works.....lb. .62¼ —
tanks, works dlvd. .....lb. .59¼- —
1,4-Dioxane, dms., c.l., dlvd. E lb. .31½- —
dms., l.c.l., dlvd E .....lb. .33 - —
tanks, dlvd E .....lb. .29 - —
Prices in the west are 2c. per lb. higher.
Dipentaerythritol, bgs. c.l., t.l., dlvd. E..lb. .34 - —
bgs., l.c.l., l.t.l., dlvd. E ....lb. .35 - —
Dipentene, dest.-dist., dms., c.l., works gal. .58 - —
dms, l.c.l., works .....lb. .62 - —
dms., l.c.l. ex whse. .....gal. .78 - —
tankcars, works .....gal. .41 - —
Steam dist., dms., c.l., works, South gal. .72 - —
dms., l.c.l., dlvd. New York gal. .91 - —
tanks, works, South .....lb. .55 - —
Dip oil (see Tar acid oil).
Diphenolic acid, 1,000-lb. or more, bgs., works lb. .75 - —
Diphenolic polyether acids, 1,000-lb. or more, bgs., works lb. 1.00 - —
Diphenyl, bgs., c.l., t.l., works..lb. .16¾- —
bgs., l.c.l., works .....lb. .18½- —
tanks, works .....lb. .15¾- —
Diphenyl oxide perfume grade, cns. lb. .55 - .70
Diphenyl phthalate, dms., c.l., works. lb. .52 - —
dms., l.c.l., works.....lb. .54 - —
Diphenylamine, refd., flake, bgs., c.l., works, frt. equald lb. .32 —
bgs., l.c.l., same basis ..lb. .34 —
Refd., fused, tanks, same basis.lb. .29 - —
Refd., diphenylamine in dms., ½c. per lb higher
Diphenylguanadine, bgs., dms., ton lots, frt. alld..lb. .51 - —
bgs., smaller lots, frt. alld.....lb. .52 - —
Diphenylhydantoin-sodium, USP, dms lb. 5.00 - 5.60
Dipropylene glycol, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., frt. alld. .....lb. .18½- —
tanks, frt. alld. .....lb. .14¼- —
Dipropylene glycol methyl ether, dms., c.l., dlvd. E lb. .20 - —
dms., l.c.l., same basis .....lb. .21½- —
tanks, same basis .....lb. .18½- —
Dithiodibenzoic acid, dms., 1,000-lb. lots, works. lb. 1.80 - —
Di-o-tolylguanidine, dms., ton lots, frt. alld. lb. .71 - —
dms., smaller lots, frt. alld...lb. .72 - —
Di-o-tolylthiourea, tech. solid, dms., c.l., t.l., frt. alld lb. .55 - —
Divinylbenzene, 20-25%, dms., c.l., works, frt. equald lb. .20 - —
dms., l.c.l., same basis .....lb. .21 - —
tanks, same basis .....lb. .19 - —
50-60%, dms., c.l., works, 100% basis lb. 1.00 - —
dms., l.c.l., works, 100% basis. lb. 1.05 - —
tanks, same basis .....lb. .90 - —
Dodecenyl succinic anhydride, dms., c.l., t.l., dlvd. E lb. .75 - —
dms, l.c.l., t.l., same basis lb. .76 - —
Dodecylbenzene, dms., c.l., t.o.d., works, frt equald. lb. .134 - —
dms., l.c.l. same basis .....lb. .144 - —
tanks, same basis .....lb. .11¼- —
Dodecylphenol, c.l., frt. alld.....lb. .22½- —
dms., l.c.l., same basis.....lb. .23½- —
tanks, same basis.....lb. .20 - —
Dodecylphenol prices on shipments to Western States are 2c. per pound higher.
Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 1-lb. lots, dlvd.:
Blue, FD&C, No. 1.....lb.15.65 -17.60
No. 2 .....lb.15.65 -17.60
Green, FD&C, No. 1.....lb.15.65 -17.60
No. 2 .....lb.19.60 -22.85
No. 3 .....lb.31.30 -35.90
Red, FD&C, No. 2.....lb. 3.30 - 4.10
No. 3 .....lb.19.60 -22.85
No. 4 .....lb 5.55 7.50
Dyes, coaltar, certified colors for drugs and cosmetics 500-lb. and 1-lb. lots, dlvd:
Violet, FD&C, No. 1.....lb.15.65 -17.60
Yellow, FD&C, No. 1 .....lb. 9.15 -11.05
No. 5 .....lb 3.30 4.10
No 6 .....lb 3.30 4.10
Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb. and 1-lb. lots, dlvd.:
Black, D&C, No. 1 .....lb.10.50 -10.95
Brown, D&C, No. 1 .....lb.15.65 -16.10

Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb. and 1-lb. lots, dlvd.:
Green, D&C, No. 5 .....lb.15.65 -16.10
No. 6 .....lb.15.65 -16.10
No. 7 .....lb.14.35 -14.80
Orange, D&C, No. 3 .....lb.10.50 -10.95
No. 4 .....lb.19.60 -20.05
No. 5 .....lb. 3.80 4.25
Red, D&C, No. 17 .....lb.10.50 -10.95
No. 18 .....lb.23.60 -24.00
No. 19 .....lb.15.00 -15.45
No. 21 .....lb 3.90 4.35
No. 22 .....lb.10.50 -10.95
No. 28 .....lb.24.15 -24.65
No. 33 .....lb.17.00 -17.45
Violet, D&C, No. 2 .....lb.15.65 -16.10
Yellow, D&C, No. 7 .....lb.10.50 -10.95
No. 8 .....lb.10.50 -10.95
No. 10 .....lb.13.05 -13.50
No 11 .....lb.13.05 -13.50
Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb. and 1-lb. lots, dlvd.:
Blue, Ext., D&C, No. 1.....lb.15.65 -16.10
Green, Ext., D&C, No. 1.....lb.15.65 -16.10
Red, Ext., D&C, No. 1.....lb.13.05 -13.50
Yellow, Ext, D&C, No. 1.....lb.10.50 10.95
Dyes, coaltar for general use in cloth dyeing (numbers are those of the Color index scale or prototype), contract dlvd. No.
11110 Brilliant scarlet BN.....lb. 1.79 - —
13390 Fast blue SR.....lb. 1.43 - —
14025 Yellow 2G .....lb. 1.26 - —
14030 Orange R, extra, conc. ...lb. 1.64 - —
14645 Chrome black T .....lb. .77 - —
14720 Rubine XX, conc. .....lb. 1.59 - —
15510 Orange Y, extra conc. ..lb. .83 - —
15575 Orange RR .....lb. .99 - —
15620 Fast Red A, conc .....lb. 1.61 - —
15705 Chrome blue black R, conc. lb. 1.12 - —
16150 Scarlet 2RL .....lb. 1.22 - —

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour index scale of prototype), contract, dlvd. No.
16255 Brilliant scarlet 3RN, conc. lb. 1.26 - —
16230 Fast light, orange 2G....lb. 1.39 - —
17590 Brown PG .....lb. 3.00 - —
18050 Phloxine 2G .....lb. 1.05 - —
18055 Fuchsine 6B .....lb. 1.55 - —
18965 Fast yellow 2G .....lb. 2.32 - —
19140 Yellow XX .....lb. 2.48 - —
19555 Yellow NN, conc. .....lb. 3.67 - —
20170 Brown Y .....lb. 1.33 - —
20470 Blue black, extra, conc lb 1.44 - —
21010 Brown, RX, conc.....lb. 1.42 - —
22240 Scarlet B .....lb. 2.81 - —
22310 Red FC .....lb. 1.57 - —
22311 Brown MCW .....lb. 1.47 - —
22610 Blue 2B, extra conc. ....lb. 1.53 - —
23500 Red, 4BX, conc. .....lb 1.80 - —
24410 Sky blue FF, extra, conc.lb. 1.95 - —
24895 Brilliant yellow, conc. lb. 3.27 - —
26360 Navy blue 3R, conc. ....lb. 1.84 - —
26695 Black F, conc. .....lb. 2.30 - —
26900 Milling Red 3R, conc.....lb. 2.24 - —
27075 Neutral black 2B, conc lb. 2.75 - —
27720 Gray L .....lb. 2.18 - —
29185 Fast scarlet 4BNC ...lb 2.23 - —
30015 Diazo black VJ conc .....lb 2.48 - —
30045 Yellow brown K, extra .lb. 1.32 - —
30235 Black EB, 200% .....lb 1.33 - —
30295 Green BY, conc. .....lb 1.07 - —
35660 Brown B .....lb 2.89 - —
37565 Naphthol SWF .....lb 1.85 - —
40000 Yellow 2G .....lb. 1.44 - —

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour index scale of prototype), contract, dlvd. No.
41000 Yellow OX .....lb 2.45 - —
42000 Green V, crystals .....lb 2.73 - —
42040 Brilliant green G crystals.lb 3.62 - —
42090 Blue EG .....lb 1.85 - —
42100 Milling green 6B, conc. lb 4.78 - —
42640 Violet 4BXN .....lb 2.43 - —
43830 Brilliant blue, BBG.....lb 2.44 - —
44045 Blue B, extra conc. .....lb 3.61 - —
45170 Red BX .....lb 4.76 - —
50415 Nigrosine SSJ .....lb 1.03 - —
52015 Blue GXX .....lb 2.33 - —
58005 Alizarin red SC.....lb 3.64 - —
59700 Golden orange GFD, single paste lb. 2.70 - —
59710 Flaming orange 6RD double powder lb. 4.90 - —
59800 Dark blue BO, single paste. lb. 2.28 - —
59825 Jade green NC supra, double paste lb 1.50 - —
61570 Alizarin green GG extra lb 3.81 - —
63010 Alizarin blue SAPG lb 3.90 - —
63615 Alizarin blue black B lb 3.26 - —
69825 Blue BLFD double paste lb. 2.76 - —
70800 Brown BR single paste lb 2.03 - —
Dyes, coaltar oil-soluble, 100-lb. drums, dlvd. No
12140 Oil scarlet BL .....lb 1.87 - —
12055 Oil orange 7078 V .....lb 1.38 - —
26120 Oil red N 1700 .....lb 1.94 - —
42535B Methyl violet base.....lb 1.88 - —
44045B Victoria blue base ....lb 4.06 - —
50415B Oil black 8603 .....lb. .80 - —



THEY ALL LIVE HERE... Miles has three bell-ringers. Push any button and things happen. For example, current projects involving aralkyl (benzyl) amines - both in production and in pilot-plant stage - are developing a growing list of applications as antioxidants and chemical intermediates. Enzymes, in addition to many industrial applications, are opening new doors in the packaging, storing and distribution of processed foods. They also have produced remarkable results as livestock feed supplements. Expanded production capacity for citric acid makes more of this versatile acid available to a growing market. Write and ring one of our bells - we'll tell you more.

Miles Chemical Company
DIVISION OF MILES LABORATORIES, INC.
ELKHART, INDIANA COngress 4-3111

Isobutyraldehyde, CP, dms., c.l., divd lb. .27½- —
dms., l.c.l., divd. lb .28½- —
Tech., dms., c.l., divd. lb .22 - —
dms., l.c.l., divd. lb .23 - —
tanks, divd lb .19½- —
Isobutyric acid, dms., c.l., t.l., divd. lb .35 - —
dms., l.c.l., l.t.l. same basis lb .36½- —
t.c t.t., same basis lb .33 - —
Isobutyronitrile, dms., c.l., divd. lb. .47½- —
dms., l.c.l., divd lb. .48½- —
tanks, divd. lb. .45 - —
Isoeugenol cns lb 3.40 4.25
Isoniazid, powd., bulk, 50 kilos kilo.12.00 - —
Isonicotinic acid, 100-lb fib. dms., works lb. 4.25 - —
Isonicotinic acid hydrazide (see Isoniazid).
Iso-octyl alcohol, dms., c.l., divd. E. lb. .23½- —
dms., l.c.l., divd. E. lb. .25 - —
tanks, divd. E. lb .21 - —
Isopentane, coml. grade, tanks, f.o.b. Tex. refy gal. .16½- —
Isophorone, dms., c.l., divd lb. .24½- —
dms., l.c.l., divd lb. .25¼- —
tanks, divd. lb. .22½- —
Isophthalic acid, dms., c.l., works, frt equald lb. .18 - —
dms. l.c.l., same basis lb .19 - —
Isopropanol (see Isopropyl alcohol).
Isopropyl acetate, dms., c.l., divd. lb. .14 - —
dms., l.c.l., same basis lb. .15½- —
tanks, same basis lb. .11½- —

Isopropyl alcohol, refd., 91%, dms., c.l., divd gal. .58 - —
dms., l.c.l., divd. gal. .68 - —
tanks, divd. gal. .42 - —
Isopropyl alcohol, refd., 95%, c.l., dms., divd gal. .60 - —
dms., l.c.l., divd. gal. .70 - —
tanks, divd. gal. .44 - —
anhyd., c.l., divd. gal. .62 - —
dms., l.c.l., divd. gal. .72 - —
tanks, divd. gal. .46 - —
Isopropyl benzene (see Cumene).
Isopropyl ether, dms., c.l., divd lb. .09½- —
dms., l.c.l., divd. lb. .11 - —
tanks, divd. lb. .07 - —
Isopropyl-N-(3-chlorophenyl) carbamate (CIPC) tech., dms., c.l. t.l., works lb. 1.00 - —
dms., l.c.l., works lb. 1.05 - 1.25
tanks, works lb. .99 - —
Isopropylamine (see Mono, Di, or Tri-).
Isopropyl-N-phenyl carbamate, 450-lb. fib. dms., c.l., t.l., works lb. .75 - —
450-lb. fib. dms., l.c.l., works lb. .80 - .90
Isoquinoline, dms., works lb. .65 1.25
Itaconic acid, refd., bgs., c.l., f.o.b. works lb. .49½- —
bgs., l.c.l., same basis lb. .50½- —
Tech., bgs., c.l., same basis lb. .34½- —
bgs., l.c.l., same basis lb. .35½- —

J

J acid, paste, bbls., works, 100% basis lb. 2.70 - —
Powd., bbls., same basis lb. 2.75 - —
Jalap root, NF, bls. lb. .60 - —
NF, powd., bbls., bxs. lb. .70 - .75
Japan wax, cs. lb. .29 - .31
Juniper berries, bgs. lb. .16 - .17
Juniper berry oil, NF, bots. lb. 2.90 - 3.75
Twice rectified, bots. lb. 3.25 - —
Juniper tar oil, NF, dms. lb. .42 - .60
Juniper wood oil, tech., cns. lb. .38 - .55

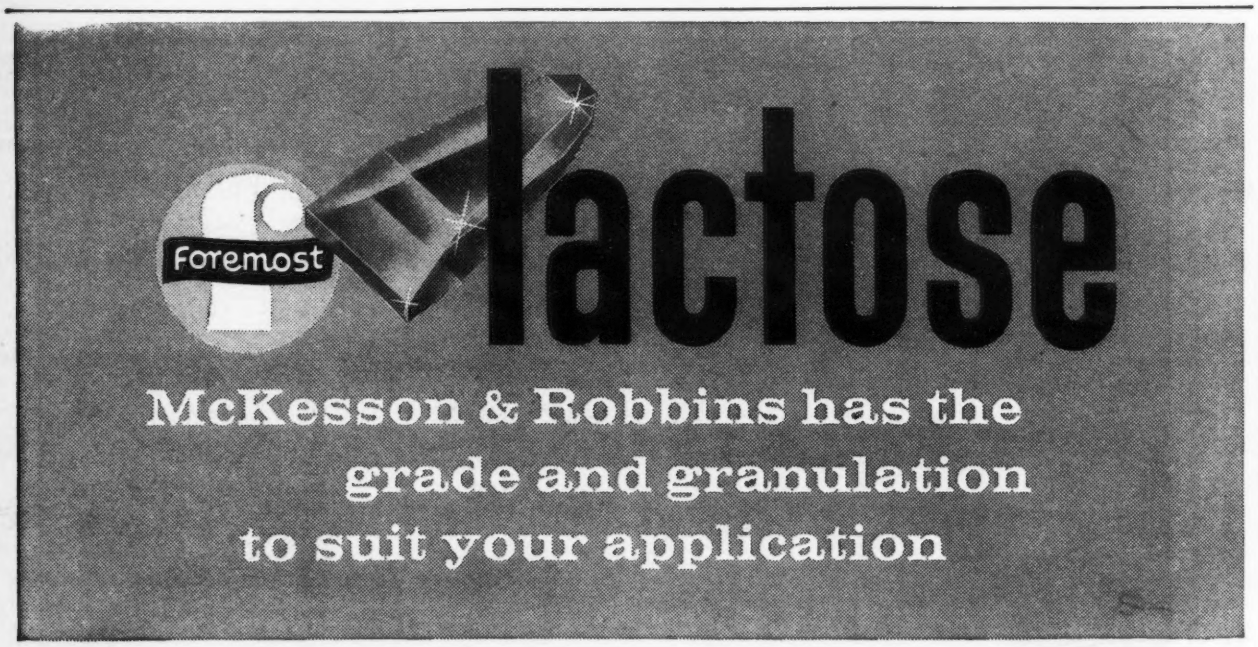
K

Kaolin (see also Clay, China).
Kaolin, NF, powd., fib. dms. lb. .10 - .12
NF, colloidal, 50-lb. bgs. lb. .15½- .17½
Karaya gum, No. 1, NF, powd., bls lb. .48 - .50
No. 2, powd., bbls. lb. .43 - .45
No. 3, powd., bbls. lb. .37 - .40
Koch acid, bbls., frt. alld., 100% basis lb. 1.00 - —
Kola nuts, bgs. lb. .11 - .12

L

L acid, bbls., works lb. 1.25 - —
Lacquer diluent, petroleum, 140°F. 200°F. b.r., tankcars, New Jersey and New York gal. .20 - —
Group 3 gal. .15125- —
Houston, Texas gal. .16 - —

Lacquer diluent, petroleum, 200°F. 240°F b.r., tankcars, New Jersey or New York gal. .20 - —
Group 3 gal. .14125- —
Houston, Texas gal. .16 - —
Lactic acid, edible, 50%, bbls. dms., c.l., frt. equald lb. .1985- —
bbls., dms., 20 or more, frt. equald. lb. .2035- —
bbls., dms., 5 to 19, frt. equald. lb. .2085- —
bbls., dms., 1 to 4, frt. equald. lb. .2135- —
Lactic acid, edible, 80%, bbls., c.l., dms., frt. equald lb. .3335- —
bbls., dms., 20 or more, frt. equald lb. .3385- —
Lactic acid edible, 80%, bbls., dms., 5 to 19, frt. equald lb. .3435- —
bbls., dms., 1 to 4, frt equald. lb. .3485- —
Plastic grade, 50%, c.l., bbls., works lb. .2740- —
bbls., 20 or more, works lb. .2790- —
bbls. 5 to 19, works lb. .2840- —
bbls., 1 to 4, works lb. .2890- —
80%, bbls., c.l., works lb. .4625- —
bbls., 5 to 19, works lb. .4725- —
bbls., 1 to 4, works lb. .4775- —
Lactic acid, tech., 44%, bbls., c.l., works, 100 lbs. 12.45 - —
bbls., l.c.l., works 100 lbs. 12.85 - —
USP, 85%, cbys. lb. .85 - —
Lactose, crystalline, edible, bgs., 23,000-lb. lots, frt. equald lb. .14 - —
bgs., 6,000-lb lots, frt equald lb. .14½- —
bgs., 2,000-lb lots, frt equald lb. .14¾- —
bgs., 200-lb lots, frt. equald lb. 15¼- —
Edible lactose in fib dms., ½c higher
Lactose, ferment, grade, bgs., c.l., works lb. .08¾- —
Lactose, USP, reg., fib. dms., 30,000-lb. lots, frt. equald lb. .21½- —
fib. dms., 2,000-lb. lots, frt. equald lb. .22¼- —
200-1,880-lb. lots, frt. equald lb. .22¾- —
USP lactose in bags ½c to 1c lower
Lactose, USP, spray dried, bgs., t.l., frt. equald lb. .18½- —
bgs., l.t.l., frt. equald lb. .19 .19¾
Lady's slipper root, bls lb. 3.00 3.50
Lamp black, bgs., c.l., works lb. .16 - .45
Lanolin, USP, anhyd., 400-lb dms., works lb. .24 - .26
USP, anhyd., cosmetic, 400-lb. dms., works lb. .26 - .30
USP, hydrous, 400-lb dms., works. lb. .20 —
Lard, cash, dms., Chicago lb. .1080- —
Lard oil (see Grease oil).
Larkspur seed, bgs. lb. .55 - —
Laurel leaf oil, dms., cns. lb. 9.75 - 12.50
Laurent's acid, bbls lb. .70 —
Lauric acid, pure, dms. lb. .32¼- .34¾
tanks lb. .29¾- —
Lauryl alcohol, bots lb. 2.00 2.50
n-Lauryl methacrylate, dms., c.l., t.l., works lb. .65½- —
dms., l.t.l., works lb. .66 - —
Lavandin oil, 22-24%, dms. lb. 1.08 - 1.10
Abrial, dms. lb. 1.12 - —
Lavender flowers, medium, bls lb. .55 - .60
Ord., bls. lb. .20 .25
Select., bls. lb. .90 1.00
Lavender flower oil, USP, French, 35-37% ester, cns lb. 1.85 4.00
40-42% ester, cns lb. 5.00 7.75
Spike, Spanish, cns lb. 1.75 - 2.00
Lead acetate, NF, cryst., gran., powd., bbls lb. .34½- —
White, cryst., bbls. lb. .25½- —
gran., bbls. lb. .26½- —
powd. bbls. lb. .26½- —
Lead arsenate, acid powder, dealers, 3-50-lb. bgs or any quantity frt. alld on $150 or more lb. .30½- —
1-lb bgs., same basis lb. .47 - —
Lead, blue, basic sulfate, bbls., c.l., shipt point, frt. alld lb. .17 - —
bbls., l.c.l., same basis lb. .18 - —
Lead carbonate (see Lead, white, basic carbonate).
Lead chloride, dms. lb. .52 - —
Lead iodide NF, V jars lb. 3.82 - —
Lead linoleate, fused, 26.5% Pb, dms. lb. .38 - —
Lead metal, prime, pigs, New York. lb. .11 - —
St. Louis lb. .1080- —
Lead monosilicate, bgs., c.l., works, frt. equald lb. .1385- —
bgs., l.c.l., same basis lb. .1485- —
Lead naphthenate, liq., 16% Pb., dms., divd lb. .19½- —
24% Pb., dms., divd. lb. .24¼- —
Solid, 47% Pb., dms., divd. lb .31¾- —
Lead nitrate, bbls. lb. .24¼- .26¾
Lead orthosilicate gel., 50-60% PbO, dms., works lb. .29¾- .34¼
Lead peroxide, tech. powd., bbls lb. .45 - .50
Lead phthalate, dibasic, dms. works. lb. .41 - —
Lead, red, 95% Pb_3O_4 or less, bbls., c.l., works, frt. equald. lb. .1375- —
bbls., l.c.l., same basis lb. .1475- —
Lead, red, 97% Pb_3O_4, bbls., c.l., same basis lb. .1375- —
bbls., l.c.l., same basis lb. .1475- —
Lead, red, 98% Pb_3O_4, bbls., c.l., same basis lb. .1410- —
bbls., l.c.l., same basis lb. .1510- —
Lead, resinate, precip., 23%Pb, dms., lb. .49 - —
Lead salicylate, normal dms., works lb. .46 - —
Lead silicate (see Lead white basic silicate).
Lead silicochromate, bgs., c.l., f.o.b. mfrs. point, frt. alld lb. .20 - —
bgs., l.c.l., same basis lb. .21 - —
Lead sulfate (see Lead blue basic sulfate).
Lead tallate, liq., 16% Pb, dms lb. .17¼- —
24% Pb, dms. lb. .21¼- —
Solid, 30% Pb, dms. lb. .26¾- —
Lead, white, basic carbonate, bgs., c.l., shipt pt., frt. alld lb. .18 - —
bgs., l.c.l., same basis lb. .19 - —
basic silicate, bgs., c.l., shipt, pt., frt. alld lb. .16½- —
Lead, white, basic silicate, bgs., c.l., shipt, pt., frt. alld lb. .17 - —
bgs., l.c.l., same basis lb. .18 - —
Lecithin, edible, tech., bleached, non-ret. dms., c.l., works. lb. .14 - .15
non-ret. dms., l.c.l., same basis lb. .15 - .16
Lecithin, edible, tech., unbleached, non-ret. dms., c.l., same basis lb. .13 - .14
non-ret. dms., l.c.l., same basis lb. .14 - .15
Lemon bioflavonoid complex, 50 kilos, f.o.b. works kilo.14.20 - —



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Lemon oil, USP, Calif., cns., dms. lb. 1.25 - 1.50
Messina, cns. lb. 3.25 - 4.00
Lemongrass oil, cns., dms. lb. 2.10 - 2.40
d-Leucine, dms., 1 kilo, works kilo 50.00 - —
Licorice root, gran., bls. lb. .13 - —
Powd., bls. lb. .15 - .16
Whole, bls. lb. .09 - .10
Lignaloe wood oil, Mexican, cns. lb. 2.75 - 3.50
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate)
Lilac oil lb. 1,500.00
Lime, chemical (quicklime), bulk, c.l., 50,000 lbs. works, E ton 14.25 - —
Chemical, hydrated, bgs., c.l., same basis ton 17.25 - —
spray, bgs., c.l., same basis ton 18.25 - —
For New York delivery, add $6.29 freight charge
Lime oil, dist., Mexican, cns. lb. 5.35 - 5.60
West Indian, cns. lb. 5.00 - 5.60
Expressed West Indian, cns lb 7.75 - 8.75
Lime salts (see Calcium)
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite).
Linalool ex bois de rose oil, dms. lb. 2.45 - 4.25
Syn., 98-100% dms., works lb 2.40 - 2.75
Linalyl acetate ex bois de rose, 90-92%, dms lb. 2.65 - 4.50
96-98% dms lb 3.25 - —
Syn., 98-100%, dms., works lb. 2.75 - —
Lindane, 25% formulation, to distributors, dms. frt. alld. lb. 1.35 - 1.50
Lindane, tech., to formulators, 250-lb. dms., 5,000 lbs. dlvd. lb 2.13 - —
100-lb. dms., 5,000-lbs. dlvd. lb. 2.15 - —
250-lb. dms., less than 5,000-lbs., dlvd lb. 2.18 - —
100-lb. dms., less than 5,000-lbs. dlvd lb. 2.20 - —
Linden flowers, with leaves, bls lb. .35 - .40
Without leaves, bls. lb. .42 - .45
Linseed meal, expeller, 32% bulk, Minneapolis, mills ton 59.50 - —
Extracted, 34% bulk, same basis. ton 54.00 - —
Linseed oil, raw, dms., c.l., New York lb. .1620- —
dms., l.c.l., New York lb. .1710- .1760
tanks, f.o.b. Minneapolis lb. .1260- —
tanks, New York lb. .1372- —
tankwagon, New York lb. .1432- —
Boiled linseed oil, .006c. per lb. higher.
Linseed oil, acid, dist., dms. lb. .1980- —
Water-white, dms. lb. .2280- —
Litharge, comi., powd., bbls., c.l., works, frt. equald. lb. .1325- —
bbls., l.c.l., same basis lb. .1425- —
Lithium aluminum hydride, lump, dms., works lb. 33.00 - 39.00
Lithium benzoate, dms. lb. 1.65 - 1.67
Lithium bromide, NF, gran., bgs., works, frt. equald lb. 2.60 - —
Lithium carbonate NF, dms., c.l., t.l., dlvd lb. 1.29½- —
dms., ton lots to t.l., dlvd lb. 1.30 - 1.30½
Tech., dms., c.l., frt. alld lb. .67 - —
dms., t.l., same basis lb. .73 - —
dms., ton lots, same basis lb. .76 - —
dms., smaller lots, f.o.b., plant, lb. .81 - —
Lithium chloride CP, anhyd., dms., ton lots lb. 1.23½- —
Tech., anhyd. dms., c.l., t.l., dlvd. or works, frt. alld lb. .87 - —
dms., l.c.l. same basis lb. .88 - .92
Lithium citrate NF dms., ton lots. lb. 1.50 - —
Lithium fluoride, dms., 20,000-lb. lots, dlvd lb. 1.75 - —
bbls., ton lots and more, dlvd lb. 1.85 - —
bbls., less ton lots, dlvd lb. 1.90 - —
Lithium hydride, powd., dms., 500-lbs lots or more, works, lb. 9.50 - —
Lithium hydroxide, monohydrate, dms. c.l., t.l., frt. alld lb. .72 - —
dms., l.c.l. frt. alld. lb. .73 - —
Lithium manganite, dms., works lb. .95 - 1.05
Lithium nitrate, tech., dms., 100-lb. lots. lb. 1.15 - 1.25
Lithium salicylate, dms. lb. 1.60 - 1.70
Lithium silicate, dms., works lb. 1.10 - 1.20
Lithium stearate, dms., c.l., works, lb. .47½- —
dms., ton lots, works lb. .48½- —
dms., less-ton lots, works lb. .53½- —
Lithium sulfate, dms., 100-lb. lots, lb. 1.15 - 1.25
Lithium titanate, dms., works lb. 1.15 - 1.25
Lithol red toner, barium, bbls., works lb. 1.03 - —
Lithol-rubine red toner, pure, bbls., works lb. 1.65 - —
Resinated, bbls., works lb. 1.47 - —
Lithopone, ord. bgs., c.l., dlvd. E. lb. .08⅜- —
bgs., l.c.l., dlvd. E lb. .09½- —
Titanated (high-strength), bgs., c.l., dlvd. lb. .11 - —
bgs., l.c.l., dlvd. lb. .12 - —
Lobelia herb, bls lb. .95 - 1.10
Loheline sulfate, bots., 50-oz. lots, works oz. 30.00 - —
Locust bean gum, powd., bgs. lb. .35 - .40
Lycododium, cs. lb. 2.50 - 3.00
l-Lysine monohydrochloride, 25-lb. dms. lb. 4.93 - —

M

Mace, Siauw, No. 1, bls. lb. 1.58 - —
No. 2, whole, bls. lb. 1.40 - —
siftings, bls lb. 1.35 - —
Mace oil, dist., cns., dms. lb. 9.00 - 11.00
Magnesia, calcined, tech., bgs., ctns., frt equald lb. .25¾- .26½
Tech., syn., rubber grade, light, bgs., c.l., frt. equald lb .28¾- .30
rubber grade, extra light, bgs., c.l., frt. equald lb. .28 - —
bgs., l.c.l., frt. equald lb. .28¾- —
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points
Magnesia, calcined, tech., heavy, 85% bgs., c.l., f.o.b. Lunning, Nev ton 39.50 - —
91%, bgs., c.l., same basis. ton 49.50 - —
95%, bgs., c.l. same basis. ton 59.00 - —
USP, light, bgs. lb. .36½- .37½
USP, heavy, bgs. lb. .36½- .37½
Magnesite, chemical grade, calcined, powd., bgs., c.l., works, frt. equald ton 86.25 - —
Chemical grade, deadburnt, standard grain, bulk., c.l., Chawelah, Wash. ton 46.00 - —
Magnesium bromide, 80-lb. dm., f.o.b. works lb. 1.15 - —
Magnesium carbonate, tech., bgs., c.l., frt. equald lb. .11 - —
bgs., t.l., frt. equald lb. .11½- —
bgs., l.c.l., frt. equald lb. .13½- .14
Magnesium carbonate, USP, bgs., c.l., frt. equald lb. .13½- —
bgs., t.l., frt. equald lb. .14 - —
bgs., l.c.l., frt. equald lb. .15 - .16
• Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points.

Magnesium chloride, anhyd., 98%, flake or pebble, drums, c.l., works lb. .12¼- —
dms., l.c.l., works lb. .14 - .15
Magnesium chloride, hydrous, 99%, flake, bgs., c.l., works ton 60.00 - —
bgs., l.c.l., works ton 75.00 - 100.00
Magnesium gluconate 100-lb. dm., f.o.b. works, E lb. 1.42 - —
Magnesium hydroxide, NF, powd., dms., 500-lbs. or more, f.o.b. works lb. .24½- .25½
Magnesium lauryl sulfate, dms., c.l., frt. alld lb. .22½- —
dms., l.t.l., frt alld. lb. .23½- —
tanks, frt. alld. lb. .21½- —
Magnesium metal, 99.8%, ingots, 10,000-lb. lots or more, works lb .36 - —
pigs, 10,000-lb. lots or more, works lb. .35¼- —
sticks, cs., works, frt. alld on carlots lb. .59 - —
Magnesium nitrate, cryst., dms., works lb. .29 - —
Magnesium oxide (see Magnesia, calcined).
Magnesium phosphate, tribasic, NF, bbls lb. .75 - —
Magnesium silicate (see Talc).
Magnesium silicofluoride, dms., works lb .10½- .12
Magnesium sulfate, tech., bgs., c.l., works 100 lbs. 2.15 - —
bgs, l.c.l., works 100 lbs. 2.90 - 3.15
USP, cryst., bgs., c.l., works, 100 lbs. 2.35 - —
bgs., l.c.l., 5,000 lbs., 1 withdrawal 100 lbs. 3.10 - —
bgs., smaller lots 100 lbs. 3.35 - —

Magnesium trisilicate, USP, fib. dms., 5,000-lb. lots lb. .39 - —
fib. dms., 1,000-lb. lots lb. .40 - —
fib. dms., 100-lb. lots lb. .45 - —
Bulky and super grades of magnesium trisilicate 7c. per lb. higher.
Malachite green, straight, PTA, bbls., works lb. 5.30 - —
Malathion, dms., c.l., works lb. .89 - —
dms., l.c.l., works lb. .92 - 1.01
Maleic acid, cryst., powd., dms lb. .37¼- —
Maleic anhydride, dms., c.l., frt. equald lb. .24 - —
dms., l.c.l., frt. equald lb. .25½- —
tanks, frt equald lb. .22½- —
Maleic anhydride in bags ½c. per lb. less.
Malic acid, tech., dms lb. .50 - —
Mandelic acid, NF, dms., 1,000-lb. lots lb. 2.35 - —
dms., smaller lots lb 2.40 - 2.50
Mandrake root, bls lb. .45 - —
Manganese acetate, dms., dlvd lb. .35 - —
Manganese borate, tech., fib. dms. lb. .23½- —
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb. lots and more, works lb. .11 - .16
Manganese chloride, CP, anhyd., dms., 20,000-lb. lots, works lb. .21¾- —
smaller lots, works lb. .23½- —

Manganese dioxide, African, 82-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross for net works ton 140.00 - —
40,000 to 99,999-lb. lots, paper bgs., same basis ton 144.50 - —
40,000 to 99,999-lb. lots, dms. same basis ton 152.50 - —
Prices for manganese dioxide in 10,000 to 40,000-lb. lots, $3 per ton higher.
Manganese gluconate, dms lb. 1.84 - —
Manganese hydrate, dms., dlvd lb. .33 - —
Manganese hypophosphite, NF, dms. lb. 3.52 - —
Manganese linoleate, liq., 4.35% Mn, dms lb. .35¾- —
Solid, precip., 8.2% Mn, bbls lb. .41¼- —
Manganese metal, electrolytic, dms., c.l., dlvd, E lb. .34½- —
dms., ton lots, dlvd. E lb. .37 - —
dms., smaller lots, dlvd E lb. .39 - —
Manganese naphthenate, liq., 6% Mn, dms., frt. alld lb. .29¾- —
Manganese resinate, fused, 3½% Mn, dms lb. .29¼- —
Precip., 6¼-7% Mn, dms. lb. .42 - —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd., S., E ton 86.50 - —
bgs., l.c.l., dlvd. S., E ton 93.50 - —
Manganese tallate, 6%, dms. lb. .26½- —

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every single time
It's Exchange Lemon Oil U.S.P., California Cold Pressed. Here is lemon flavor as it should be—full of the aromatic pungency of California's best lemons. And it's uniform—the same, batch after batch. Only the Sunkist Growers, with the world's largest stocks of coastal, highland and desert-grown lemons at their command, could produce an oil with such consistent flavor balance.
Always look for "Exchange" on the tamper-proof container seal—your guarantee it was pressed and packed by the Sunkist Growers. You can depend on it.
Sunkist Growers
Products Sales Department, Ontario, California
Exchange Brand Lemon Oil is distributed in the U.S. by Dodge & Olcott, Inc.; Fritzsche Brothers, Inc.; Ungerer & Co.
Exchange

Manila Copal Gum—Nitrogen Solutions

Manila copal gum, C, bgs. lb. .35 - .39
DBB bgs. lb. .25 .28
DK, dust, bgs. lb. .14 Nom.
MA, soft, bgs. lb. .20 .24
WS, bgs lb. No stocks.
Mannitol, com'l, fib dms., ton lots, works lb. .60 — —
fib. dms., to ton lots, works lb. .62 - —
fib. dms., single dm., works lb. .65 - —
Marine pitch, dms. lb. .04¼ - .05
MBTS (see Mercaptobenzothiazyl disulfide).
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs., c.l., works lb. .26½ - —
bgs., l.c.l., works lb. .28 — —
Menadione, USP bots. gram. .044 .05
Menhaden oil, crude, tanks, works, ... gal. .06¼ - —
Menthol, nat. USP, Brazilian, large crystals, cs lb. 8.75 - 9.00
Nat., USP, Brazilian, regular crystals, cs lb. 8.60 - 8.85
Japanese cs. lb. 10.50 12.00
Syn., USP, racemic, 25-lb. lots lb. 4.25 - —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld lb. .44 - —
bgs. fib. dms., less ton lots, same basis lb. .48 - —
Mercaptobenzothiazyl disulfide, bgs., fib dms., ton lots, works, frt. alld lb. .54 - —
bgs. fib dms. less ton lots, same basis lb. .56 - —
Mercuric chloride, NF, cryst., dms., 100 lbs f.o.b. works lb 4.03 - —
USP, gran. or powd., 50-lb. dm., 100 lbs. f.o.b. works lb 3.78 - —
Mercuric cyanide, NF VIII powd., fib dms lb 5.84 - —
Mercuric iodide red, NF, 100-lb. dm f.o.b. works lb 6.97 - —
Mercuric oxide red NF IX 50-lb. dm. 100 lbs. f.o.b. works, lb 4.72 - —
tech., 50-lb dm. 100 lbs., same basis lb 4.52 - —
Mercuric oxide yellow NF, 50-lb. dm 100 lbs., same basis, lb 4.89 - —
tech., dms. 100 lbs lb 4.35 - —
25-lb fib dm lb. 4.38 - —
Mercurous chloride (see Calomel).
Mercurous iodide yellow, NF 100-lb. dm f.o.b. works lb 8.22 - —
Mercury, ammoniated (see White precipitate USP XV).
Mercury metal 76 lbs. per flask, net-flask 209.00 - 212.00
Mesityl oxide dms. c.l., dlvd lb .15 — —
dms. l.c.l., dlvd lb. 16½ - —
tanks dlvd lb 12½ - —
Meta aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline).
Metanilic acid dms. works lb 57 .75
Metanitroparatoluidine (see m-Nitro-toluidine).
Metanitroaniline (see m-Nitroaniline).
Metaphenylenediamine (see m-Phenylenediamine).
Metatoluidine (see m-Toluidine).
Metatolylenediamine (see 2,4-Tolylenediamine).
Methacrylic acid glacial 98%, dms. truckloads frt equald lb .42½ — —
dms. smaller lots, frt equald. lb. .43 .75
tanks works, frt. equald lb. .40 — —
Methanol, nat, denaturing grade, tanks frt alld gal. .85 — —
Syn., zone 1, dms., c.l., or t.l. min. dlvd gal. .51½ — —
dms. l.c.l., dlvd gal. .61½ - —
tankwagon, 2,000-4,000 gal. lots, dlvd Metropolitan area gal. .35 - —
tankwagon, 4,000 gal. min., dlvd gal. .30 - —
tankwagon, 4,000 gal. min., f.o.b. terminal gal. .29 - —
Methanol, syn., zone 2, dms. c.l., or t.l., min frt alld or dlvd. gal. .55½ - —
dms., l.c.l., works gal. .65½ - —
tankwagon, 2,000-4,000 gal. lots, min., dlvd., Metropolitan area gal. .39 - —
tanks, 4,000 gal. min., dlvd. gal .34 — —

Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.

Methapyrilene fumarate, 100-999 lbs., dms., f.o.b. works, frt. equald lb 21.75 - —
Methapyrilene hydrochloride, 100-999 lbs., dms., f.o.b. works, frt equald lb. 27.25 — —
Methenamine (see Hexamethylene-tetramine).
Methionine hydroxyanalogue, calcium salt) 90% min., dms. l.c.l. frt alld lb 1.10 - —
dms., l.t.l., same basis lb 1.16 - —
dl-Methionine, fib dms., frt alld., 50-lb or more lb 3.50 - —
Feed grade, 98% fib dms same basis lb. 1.43 - —
Methoxychlor 50% wettable powder dealers dms cs lb. .66 — —
Methyl abietate non-ret dms., c.l., dlvd zone 1 lb. .21½ — —
non-ret dms. l.c.l. same basis lb. .22 .22½
Methyl abietate hydrogenated, non-ret dms., c.l., dlvd zone 1 lb. .23½ - —
non-ret dms., l.c.l. same basis, lb. .24 .24½

Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn.

Methyl acetone, nat. dms., l.c.l., E. of Miss. frt alld gal. .62½ - —
Methyl acetone syn. dms. c.l. frt. alld E gal. .66 - —
Methyl acetone, syn., dms., l.c.l., frt. alld. E gal. .76 - —
tanks frt alld E gal. .51 — —

Synthetic methyl acetone E territory comprises all states East of and including Colo., Mont., N. Mex. and Wyo. West territory is made up of 11 states west of those four.

Methyl acrylate, dms., c.l., t.l., dlvd. lb. .36¼ - —
dms., l.t.l., dlvd lb. .35¼ - —
tanks, dlvd. lb. .32¼ - —
Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E lb. .17 - —
dms., l.c.l., dlvd E. lb. .18½ - —
tanks, dlvd E lb. .14½ - —
Methyl amyl alcohol, dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd. lb. .18½ - —
tanks, dlvd lb. .14½ - —
Methyl amyl ketone, dms., c.l., t.l., f.o.b. works lb. 1.99¼ - —
N-Methylaniline, tech., tanks, frt. alld lb. .60 - —
Methylanthranilate, cns. lb 2.25 2.45
Methyl benzoate, cns., dms. lb. .60 - .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt. alld lb. .62 - .72
on 100 lbs. lb. .73 - .79
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb. bgs., c.l., works lb. .82 - —
50-lb. bgs., 2,000-lb. lots and more, same basis lb. .89 - —
50-lb. bgs., smaller lots, frt. alld on 100 lbs lb. 1.05 - —
Methyl cellulose, standard vis. (15,-400 cps.) 50-lb. bgs., c.l., frt. alld lb. .69 - —
50-lb. bgs., 2,000-lb lots and more, same basis lb. .76 - —
50-lb. bgs., smaller lots, frt. alld.
Methyl chloride, indust. cyls., frt. equald lb. .22¼ - —
tanks, multi-unit, same basis. lb. .16¼ - —
tanks, single unit, same basis. lb. .12¾ - —
Methyl chloride, refrigerator mfrs., cyls., dlvd lb. .48¾ - —
Other consumers of service men, cyls., dlvd lb. .67¾ — —
Methyl chloroform (see 1,1,1-Trichloroethane).
Methyl cinnamate, cns lb. 1.55 1.80
Methyl ethyl ketone, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd lb. .16½ - —
tanks, dlvd. lb. .12½ - —
2-Methyl-5-ethyl pyridine, dms., c.l., works lb. .45 - —
dms., l.c.l., works lb. .45¾ - —
tanks, works lb. .43 - —
Methyl formate, refd., dms lb. .35 - .40
Tech., non-ret. dms., any quantity, works lb. .10 - —
tanks, works lb. .07 - —
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works lb. .21 - —
100-lb. multiwall paper bgs., t.l., min 23,000 lbs., works, lb. .21½ - —
100-lb. multiwall paper bgs., l.t.l., works lb. .23 — —
Methyl heptin carbonate, bots lb. 27.75 - 31.00
Methyl p-hydroxybenzoate, fib. dms. lb. 1.90 2.00
Methyl ionone, standard, cns., dms. lb. 3.40 3.85
Methyl isoamyl ketone, dms., c.l., dlvd lb. .20 - —
dms., l.c.l., dlvd. lb. .20½ - —
tanks, dlvd. lb. .17½ - —
Methyl isobutyl carbinol (see Methyl amyl alcohol).
Methyl isobutyl ketone, dms., c.l., dlvd lb. .17 - —
dms., l.c.l., dlvd lb. .18½ - —
tanks, dlvd lb. .14½ - —
Methyl methacrylate, dms., c.l., t.l., frt. equald. with Belle, W. Va lb. .31 - —
dms., smaller lots, same basis lb. .31½ - —
tanks, same basis lb. .29 — —
Methyl naphthyl ketone, cryst., cns lb. 2.45 - 4.30
Methyl parahydroxybenzoate (see p-Hydroxybenzoate)
Methyl parathion, tech., 80%, dms., frt. alld. E lb. .84 - —
Methyl parathion prices 2c. per lb. higher in West
Methyl roseaniline chloride, NF., 5-lb fib dms lb. 6.90 - —
Methyl salicylate, dms., t.l., frt. alld lb. .60¼ - —
dms., l.c.l., same basis lb. .62½ - .67½
Methyl testosterone, USP, 100-gram, bots gram. No Prices.
2-Methyl-5-vinyl pyridine, 40-dm lots or more, f.o.b. works lb. 1.32 - —
5-39 dm. lots, same basis lb. 1.37 - —
tanks, same basis lb. 1.27 - —
Methyl violet toner, molybdated, PMA, bbls., dlvd. E. of Rockies lb. 2.95 - —
Tungstated, PTMA, bbls., same basis lb 4.35 — —

Methyl violet prices 1c. higher W. of Rockies.

Methylene blue, fib. dms., 100-lb. lots, frt. adjusted lb. 4.67 - —
Methylene chloride tech. straight or assorted dms c.l. or t.l., dlvd. lb. .12½ - —
dms. l.c.l. t.l. dlvd lb. .15¾ — —
tanks, 4,000-gal. min., dlvd lb. .11¼ - —
h-Methylnaphthalene ...z t... m.p., dms. works lb 90 — —
Methylpentanediol (see Hexylene glycol).
Methylphenylpyrazolone (see 1-phenyl-3-methyl-pyrazolone-5).
Methylthionine chloride (see Methylene blue).
Mica dry-grd., paint, plastic, 100 mesh, bgs. c.l., works lb. .04 - —
roofing, 20 to 80 mesh, works lb. .03 - —
wet-grd., biotite, bgs., c.l., works, frt alld.E lb. .06½ - —
bgs., l.c.l., ex-whse. lb. .07¼ - —
paint or lacq., bgs., c.l., 325 mesh, works, frt. alld. E. lb. .08¼ - —
bgs. l.c.l., ex-whse or freight alld E lb. .09 - —
Mica, wet-grd., rubber, bgs., c.l., works, frt. alld E lb. .08 - —
bgs., l.c.l., ex-whse., or frt. alld. E lb. .08¾ - —
wallpaper, bgs., c.l., works, frt. alld.E lb. .08¾ - —
bgs., ex-whse or frt. alld E. lb. .09 - —
white, 5-10 microns, bgs., c.l., works, frt alld E lb. 08¼ — —
Mica, wet-grd W. of Miss. ½c. higher; W. of Rockies 1c higher
Microcrystalline wax, petroleum, coating grades, tankcars, works lb. .10 - .11
laminating grades, tankcars, works lb. .11 .12
Mineral black, bgs., works lb. .0160- .0673
Mineral oil, white tech., 50-65 vis., non-ret dms., c.l., f.o.b. refy gal. .65 - —
50-65 vis. non-ret. dms., l.c.l., basis gal. .70 - —
tankcars, refy gal. .49 - —
Mineral oil, white tech., 65-75 vis., non-ret. dms., c.l., same basis gal. .65 - —
non-ret. dms., l.c.l., same basis gal. .70 - —
tankcars, refy. gal. .49 - —
NF, 80-90% vis. non-ret. dms., c.l., same basis gal. .66 - —
non-ret. dms., l.c.l., same basis gal. .71 - —
tankcars, refy. gal. .50 - —
Mineral oil, white, NF, 135-138 vis., non-ret. dms., c.l., same basis gal. .72 - —
Mineral oil, white, NF, 135-138 vis., non-ret dms., l.c.l., same basis gal. .77 - —
tankcars, rfy. gal. .56 - —
Mineral oil, white, NF, 145-158 vis., 8 non-ret. dms., c.l., same basis gal. .78 - —
non-ret. dms., l.c.l., same bgs. gal. .83 - —
tankcars, refy. gal. .62 - —
Mineral oil, white, USP, 180-190 vis., non-ret. dms., c.l., same basis gal. .80½ - —
non-ret. dms., l.c.l., same basis gal. 85½ - —
tankcars, refy. gal. .64½ - —
Mineral oil, white, USP, 200-210 vis., non-ret. dms., c.l., f.o.b. refy. gal. .82½ - —
non-ret. dms., l.c.l. gal. .87½ - —
tankcars, refy gal. .66½ - —
Mineral oil, white, USP, 340-350 vis., non-ret. dms., c.l., f.o.b. refy. gal. .87½ - —
non-ret. dms., l.c.l. gal. 92½ - —
tankcars, refy gal. .71½ — —

(For f.o.b. N. Y. add 2c. for tankcars; 2c. for c.l., and 3c for l.c.l non-ret. dms.).

Mineral orange, American, bbls., c.l., works lb. .16 - —
bbls., l.c.l., same basis lb. .17 - —
Mineral spirits, petroleum, odorless, tankcars, New Jersey gal. .29 - —
New York gal. .305 - —
Houston, Texas gal. .25 - —
regular, tankcars, New Jersey and New York gal. .18 - —
Group 3 gal. .12875- —
Houston, Texas gal. .145 — —
Mineral spirits, 140 F, flash, New York, New Jersey at terminal gal. .205 - —
Houston, Texas gal. .17 - —
Mink oil, dms lb. 2.75 - —
Mirbane oil (see Nitrobenzene).
MNPT maroon toner, kgs., c.l., works lb. 6.30 - —
Molasses, blackstrap, feed grade, tanks, New Orleans gal. .13 - —
tanks, New York gal. .14 - .14½
Molybdated orange, bbls. lb. .49 - —
Molybdenum metal, powd., 80 or 200 mesh, ctns., works kilo. 7.84 - —
325 mesh, ctns., works kilo. 9.13 - —
Molybdenum trioxide, purif., dms., works lb. 1.15 - —
Tech., chemical, dms., works, basis Mo content lb. 1.48 - —
Tech., metallurgical, dms., works, basis Mo. content lb. 1.47 - —
Molybdic acid, 85%, dms., works. lb. 1.05 - 1.15
Monoallylamine, dms., c.l., dlvd lb. .965 - —
dms., c.l., dlvd. lb. .995 - —
tanks, dlvd lb. .96 - —
Monobutylamine, dms., c.l., dlvd. E. of Rockies lb. .57½ - —
dms., l.c.l., same basis lb. .59 - —
tanks, same basis lb. .55 - —
Mono-tert-butyl-m-cresol, dms., c.l., works lb. .55 - —
dms., l.c.l., works lb. .56 - —
tanks, works lb. .54 - —
Monochloracetic acid, purif. (see Chloroacetic acid, mono).
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E lb. .10½ - —
dms., l.c.l., same basis lb. .11½ - —
tanks, same basis lb. .08¾ - —
Monoethanolamine, dms., c.l., dlvd. E lb. .27½ - —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Monoetnylalphanaphthylamine (see Monoethylamine, 70% aqueous, solution, dms., c.l., dlvd. E, 100% basis lb. .38½ - —
dms., l.c.l., dlvd. E., 100% basis, lb. .40 - —
tanks, dlvd. E., 100% basis lb. .35 - —
Monoethylaniline (see N-Ethylaniline).
Monoethylorthotoluidine (see N-Ethyl-o-toluidine)
Monoisopropanolamine, dms., c.l., dlvd. E lb. .27½ - —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Monoisopropylamine, anhyd., dms., c.l., dlvd lb. .33½ - —
dms., l.c.l., same basis lb. .35 - —
tanks, same basis lb. .31 - —
Monomethylamine, anhyd., cyls., l.c.l., frt. equald., 100% basis lb. .30 - —
tanks, 100% basis lb. .26 - —
30-35% soln., dms., c.l., frt. equald., 100% basis lb. .36 - —
Monomethylamine, 30-35% soln., dms., l.c.l., frt equald, 100% basis lb. .36½ - —
tanks, frt. equald., 100% basis, lb. .26 - —
40% soln., dms. frt. equald., 100% basis lb. .33 - —
dms., l.c.l., frt. equald., 100% basis lb. .33½ - —
tanks, frt equald, 100% basis lb. .26 - —
Monopentaerythritol, tech., bgs., c.l., dlvd. E lb. .31 - —
bgs., l.c.l., dlvd. E lb. .32 - —
Monopotassium glutamate, dms., 1,000-lb lots, frt alld lb 3.05 - —
dms 100 lb lots same basis lb 3.25 - —
Monosodium glutamate, dms., dlvd. lb. 1.07 - 1.15
Monosodium phosphate (see sodium phosphate, monobasic)
Montan wax, Calif., refd., bgs lb. .27 - .28
Imp., crude, Bohemian, bgs. lb. .25 - .26
German, bgs lb. .25 - .26
Morphine, cns., 100-oz., f.o.b. works oz. 12.35 - —
Morphine hydrobromide, cns., 100-oz., f.o.b. works oz 9.90 - —
Morphine hydrochloride, NF, cns., 100-oz., f.o.b works oz. 9.90 - —
Morphine sulfate, USP, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morpholine, dms., c.l., dlvd. E lb. .55¼ - —
dms., l.c.l., dlvd. E lb. .56¼ - —
tanks, dlvd. E lb. .52¾ - —
Muriatic acid (see Hydrochloric acid).
Musk, syn., ambrette, fib. dms., 100-lb. lots lb 4.40 4.90
cns., 25-lb lots lb 4.50 5.00
Ketone fib. dms., 100-lb. lots lb 4.60 5.10
cns., 25-lb. lots lb 4.70 5.20
Xylol, fib. dms., 100-lb. lots lb 1.26 - —
cns., 25-lb. lots lb 1.40 - —
Mustard seed, Danish, yellow, bgs. lb. .12 - —
Montana, yellow, bgs lb. 10½ - —
Oriental, bgs lb. .08 - —
Mustard, oil, syn., bots lb. 1.60 1.85
Myristic acid, bgs. lb. .25½ - .27¾
tanks lb. .24¼ - —
Myrrh gum, cs lb. .65 - .75

N

Naphtha, high solvency (see Solvent naphtha, petroleum).
Naphtha, petroleum, cleaner's (see Cleaner's naphtha).
Naphtha, VM&P, petroleum, tankcars, New Jersey and New York gal. .19 - —
Group 3 gal. .13875- —
Houston, Texas gal. .155 - —
Naphthalene, crude, dom., 78°, tanks, frt. equald. lb. .06¼ - .07
imp., 78°, bgs., large lots lb. .09½ Nom.
Refd., indust., chipped, crushed, bgs., frt. equald lb. .13½ - —
tanks, same basis lb. .10¾ - —
Naphthalene, refd., indust., balls, flakes, wholesalers, jobbers, bbls., c.l., same basis. lb. .15½ - —
cs., 50 lbs., c.l., same basis. lb. .15¾ - —
1-lb. pkgs., c.l., same basis. lb. .18½ - —
a-Naphthol, dms., frt. alld lb. 1.02 - —
b-Naphthol, tech., flake, bbls., c.l., works lb. .34 - —
bbls., l.c.l., works lb. .36 - —
Naphthol, ITR, red toner, bbls., works lb 5.00 - —
1-Naphthol-3,6-disulfonic 8-amino acid (see H acid)
1-Naphthol-4 sulfonic acid (see Neville and Winther's acid)
1-Naphthol-5-sulfonic acid (see L acid)
1-Naphthol-5-sulfonic 8-amino acid (see S acid)
2-Naphthol-6,8-disulfonic acid (see Gamma acid).
Naphthol sulfonic mixed acid (see Cleve's acid)
a-Naphthylamine, dms., frt. alld lb. .52 - —
b-Naphthylamine tech. flake bbls., works lb. 1.60 - —
1-Naphthylamine-5-sulfonic acid (see Laurent's acid)
2-Naphthylamine-4,8-disulfonic acid (see Cassella acid)
2-Naphthylamine-1-sulfonic acid (see Tobias acid)
2-Naphthylamine-6-sulfonic acid (see Broenner's acid)
2-Naphthylamine-7-sulfonic acid (see F acid)
Naringin, fib dms lb. 8.50 — —
Neatsfoot oil, 15° cold test, dms lb 29 Nom.
20° cold test dms. lb. .28 Nom.
30° cold test, dms. lb. .27 Nom.
Neocinchophen, USP, dms., frt, adjusted lb. 7.00 8.00
Neomycin sulfate, fib. dms. 1-kilo basis activity gram. .25 - —
fib. dms. 100-999-gram lots, basis activity gram. .30 - —
Tech., fib dms. gram. .13½ - —
Neopentylglycol, dms., c.l., dlvd lb. .32 - —
dms. l.c.l. same basis lb .33 - —
Nerol, dms. lb 4.75 — —
Neroli oil, NF, French, bots. lb. 425.00 - 575.00
Tunisian, bots. lb. 400.00 — —
Nerolin, cns. lb 2.45 2.85
Neville and Winther's acid, dms., frt. alld lb. 1.40 - —
Niacinamide (see Nicotinamide)
Nickel acetate, bbls., dlvd. lb. .68½ - .75½
Nickel carbonate bbls., dlvd lb. 78¼ - .85¼
Nickel chloride, bbls., dlvd. lb. .37 - .45
Nickel formate, bbls., ton lots, frt. alld lb. .72 - .73
Nickel metal, electro cathodes, cs., works lb .74 — —
Nickel nitrate, dms., frt. alld lb. .31½ - .33½
Nickel oxide, black, bbls. lb. .85 - —
Green, bbls. lb. .84 - —
Nickel sulfate, bgs., c.l., dlvd lb. .28 - —
bgs., l.c.l., dlvd. lb. .28½ - .36
Nicotinamide, USP, 50-kilo, dms., 100 kilos., dlvd. kilo. 5.75 - 6.50
dms. less than 100 kilos. dlvd kilo. 6.25 - 7.00
Nicotinamide hydrochloride, 50-kilo dms., 100 kilos., dlvd kilo. 5.75 - —
Nicotine sulfate, 40%, dealers, 50-lb. dms. frt alld lb 1.20 - —
40% manufacturers, 500-lb. dms., frt. alld lb 1.05 - —
Nicotinic amide, USP (see Nicotinamide)
Niger seed, bgs. lb. 10¼ - —
Nikethamide, cbys. lb 5.00 - —
Nitric acid, 36° Be., cbys., c.l., works E 100 lbs. 5.75 - —
cbys., l.c.l., works E 100 lbs 6.05 6.85
38° Be., cbys., c.l., works E 100 lbs 6.25 — —
cbys., l.c.l., works E 100 lbs 6.55 7.35
40° Be., cbys., c.l., works E. 100 lbs 6.75 — —
cbys., l.c.l., works E 100 lbs. 7.05 7.85
42° Be., cbys., c.l., works E. 100 lbs 7.25 — —
cbys., l.c.l., works E 100 lbs. 7.55 8.35
58.5 to 68%, HNO_3, tanks, works, 100% basis 100 lbs. 3.90 - —
94½ to 95½% HNO_3, tanks, works, 100% basis 100 lbs. 4.90 - —
Nitric acid, CP, NF, consumer, cbys., extra, c.l., works lb. .18½ - —
cbys. extra, l.c.l. works, lb. .20 — —
5-pint bots., extra, cs., c.l. same basis lb. .22½ - —
5-pint bots., extra, cs., l.c.l., same basis lb. .24 .25
dms. frt alld lb. .99 - —
4-Nitro-2-aminophenol, tech., paste, dms., l.c.l., works lb. .64 - —
m-Nitroaniline, cryst., dms., frt alld lb 1.15 - —
Paste, dms., frt. alld., 100% basis 1.10 - —
o-Nitroaniline, flaked, dms. t.l., frt. alld lb. .49 - —
dms. t.l., frt alld lb. .51 - —
o-Nitroaniline orange toner kgs. 1.50 - —
p-Nitroaniline, c.l., t.l., dms., 20,000 lb. min., dlvd lb. .44½ - —
dms. l.c.l., same basis lb. .46½ - —
o-Nitroanisole, tech., tanks, frt alld. lb. .36 - —
p-Nitroanisole, tech., solid, dms., frt alld lb. .72 - —
Nitrobenzene, dbl dist., dms., c.l., frt alld lb. .13 — —
dms., l.c.l., frt. alld. lb. .14 - —
tanks, frt. alld lb. .12 - —
p-Nitrobenzoic acid, dms., c.l., works lb. .63 - —
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works lb. .37½ — —
bbls., l.c.l., same basis lb. .33½ - .40½
18-20, cps., bbls., c.l., same basis lb. .39½ - —
bbls., l.c.l., same basis lb. .40½ - .42½
250-400, 600-1,000 seconds, bbls., l.c.l., same basis lb. .43 - .46
Nitrocellulose, spirit soluble, 30-35 cps., ¼, ½ seconds, bbls., c.l., same basis lb. .43 - —
bbls., l.c.l., same basis lb. .44 .46
5-6 cps., 40-60 seconds, bbls., c.l., same basis lb. .42 - —
bbls., l.c.l., same basis lb. 43 .45

Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable.

o-Nitrochlorobenzene, dms. c.l., frt. alld lb. .15 - —
dms., l.c.l., same basis lb. .16 - —
tanks, same basis lb. .13 - —
p-Nitrochlorobenzene, dms. lb. .26 - .27
2-Nitro-p-cresol, tech., dms., dlvd lb .88 - —
Nitroethane, dms., c.l., dlvd. E lb. .25 - —
dms., l.c.l., dlvd. E lb. 26½ - —
tanks, dlvd E lb. 27½ - —

Nitroethane prices West of Rockies are 1c. higher.

Nitrogen solutions, direct application, tanks, f.o.b. works unit-ton. 1.64 - —
Manufacturing type, same basis, unit-ton. 1.32 - —

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U.S.I. CHEMICAL NEWS

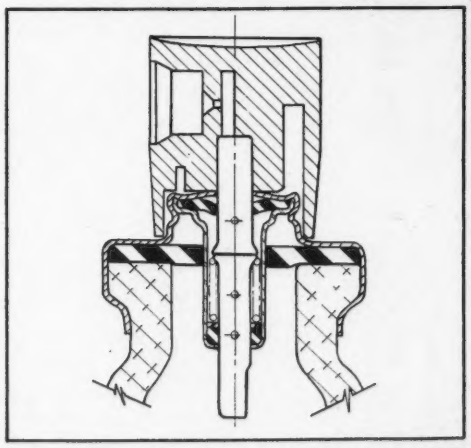
January ★ A Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★ 1961

New Filling Technique Spurs Use of Metered Valves for Aerosols

In recent months a practical, volume-production method has been developed for pressure-filling aerosol containers through metering valves. Advantages claimed for pressure-filling over cold-filling techniques for metered valves: water-based systems can be handled; no danger of chemical change caused by cooling. As a result, it is felt that the new technique will lead to more widespread use of metered aerosols, particularly for drugs and cosmetics.

A metering valve has two ports—inlet and outlet. When the actuating button is pressed, both ports are operated. The inlet port closes to shut off the product in the container. The outlet port opens to let the product trapped in the valve expand and

MORE



Cross-section of metered valve shows 2 lower ports for pressure filling. (Diagram courtesy of Emson Research)

New Data Sheet on Diethyl Carbonate Offered by U.S.I.

Specifications, properties, commercial information, typical reactions and uses of diethyl carbonate are detailed in a new technical data sheet just released by U.S.I. The material is a medium evaporating nitrocellulose solvent having mild odor, good stability and extremely low acidity. It is considered as nearly neutral an ester solvent as it is possible to make.

Diethyl carbonate is also used as a solvent for synthetic and natural resins, and lacquers such as those required for coating the cathodes of radio tubes. The material is also employed for organic syntheses.

For a copy of the new data sheet, contact your nearest U.S.I. sales office or Technical Literature Dept., U.S.I. Chemical News, 99 Park Ave., New York 16, N. Y.

U.S. Anhydrous Ammonia Production Up 10% in 1960

Versatile Chemical Employed in Agriculture, and by Industry in Wide Range of Operations from Drug Manufacture to Explosives.

The U.S. Department of Commerce reports that in the first six months of 1960, 2.5 million short tons of synthetic anhydrous ammonia were produced in this country—10% more than in the same period in 1959. This increase brings production up 80% since 1954. It reflects the growing importance of the material, not only for fertilizer purposes, but for a wide range of industrial operations as well. Most important industrial uses include:

Ammonia in Chemical Processes

Ammonia is important in the production of pharmaceuticals such as sulfa drugs, vitamins, antimalarials, amino acids.

Petroleum refiners employ ammonia to neutralize acids in oil to protect equipment from corrosion. For this purpose it is low-cost, has a high diffusion rate in oil, and neutralizes acidity without forming water. Products of neutralization are easily eliminated and excess ammonia can be removed by aeration. It can be introduced into equipment by its own vapor pressure.

Ammonia in Explosives

The explosives industry is one of the largest industrial consumers of ammonia. Nearly all industrial and military explosives contain nitrogen derived from ammonia by way of nitric acid or amines.

Ammonia in Textiles and Plastics

Rayon makers use ammonia to produce ammoniacal copper hydroxide solutions for dissolving cotton linters. In nylon manufacture, it is a raw material for hexamethylenediamine. It also plays a part in making acrylonitrile fibers.

The plastics industry employs ammonia in producing urea formaldehyde resins, and for making hexamethylenetetramine—catalyst and pH control agent in production of phenol—and urea-formaldehydes.

Ammonia in Pulp and Paper

An increasingly important application for ammonia is its substitution for lime in bisulfite wood pulping. It is claimed that ammonium bisulfite produces pulp of better quality, greater yield, reduces steam consumption, and makes possible the use of some hardwoods previously considered unuseable. Conversion is inexpensive.

Ammonia in Metal Working

The most important use of ammonia here is in case hardening of steel by nitriding. Ammonia vapor is passed over steel parts in a furnace at 900° - 1,000°F. It dissociates, producing "active"

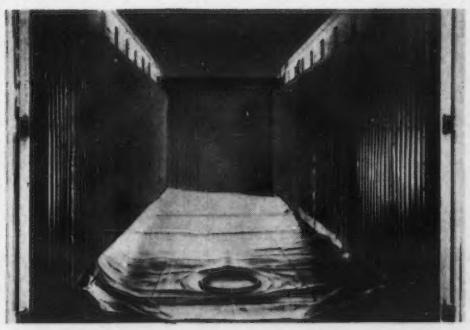
MORE

Polyethylene Liners in Collapsible Containers Used to Haul Bulk Liquids

Disposable polyethylene liners are now being used within large collapsible containers to haul liquids which must be kept free of contamination in transit. Recently introduced for carrying edibles such as milk, fruit juices and vegetable oils, the lined containers have possibilities for many other raw materials as well.

These containers can be carried on any van or flat-bed trailer, including refrigerated vans, it is reported. They come in 22-, 30-, or 34-foot sizes, with capacities of 2,750, 4,000 and 4,600 gallons.

To free the vehicle for transporting dry freight following delivery, the disposable polyethylene liner is removed and the container is rolled into a compact package. For reuse, the container is unrolled on the floor of the vehicle and inflated. A new, sanitary polyethylene liner is then easily spread within the container and also inflated.



Collapsible container is unrolled on floor of trailer, inflated with low-pressure air.

Polyethylene liner is spread inside and inflated, and container is ready for loading.

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January ★ **U.S.I. CHEMICAL NEWS** ★ 1961

CONTINUED *Ammonia*

nitrogen which reacts with steel to form a hard layer that resists wear at operating temperatures up to 750°F.

Ammonia as Refrigerant

Ammonia is one of the oldest and best refrigerants, and the most widely used in large installations. Advantages include low cost, low power consumption, low friction and vapor density, and high heat of vaporization.

Ammonia for Water Purification

In industrial and municipal water supplies, ammonia and chlorine in about a 1:4 ratio form mono and dichloramines which are delayed sterilizing agents. They permit higher residual chlorine concentrations without chlorine taste and odor.

Fertilizer applications account for over 75% of all ammonia produced, particularly in the Mid-West around U.S.I.'s ammonia plant at Tuscola, Ill. Consumption breakdown for other industries is:

Chemical Processes	7%
Explosives	5%
Synthetic Fibers	3%
Plastics & Resins	3%
Pulp & Paper	1.5%
Metallurgy	1%
Miscellaneous	3.5%

CONTINUED *Aerosol Valve*

escape. In pressure-filling through this type of valve, the liquid propellent being injected must somehow get past the seal of the inlet port and into the container.

This problem has been solved in valve design by adding two ports to the bottom part of the valve stem. A special attachment on the standard pressure-filling head depresses the valve to its limit. The two added ports then bypass the inlet port seal and provide a passage through the valve stem into the container for injection of propellant.

U.S.I. Names New V.P.

Paul J. LaMarche has recently been named Vice President of Production for U.S.I. Mr. LaMarche joined the company in 1949. Shortly thereafter, he became Manager of Sodium Sales. From 1951 to 1958, he was Manager of the company's plants at Ashtabula, Ohio. He became Director of Production in 1958.

Paul J. LaMarche

New Cold Soda Pulping Process in Pilot Stage

Uniform penetration of hardwood chips to yield a uniform pulp with good fiber length is the major innovation claimed for a new, continuous system of cold soda pulping, now reported in pilot operation.

The process is reported to have the usual advantage of cold soda pulping over other methods—a combination of high yields (85-95%), low power needs (12-25 hp. per ton), low chemical requirements, low capital outlay. However, this new process has been designed to achieve uniform penetration of chips by caustic, a problem with other cold soda processes.

Chips are fed into a tapered-throat screw press having an extra length of piping (a plug pipe) at its outlet. The screw forces the chips into this plug pipe, compressing them and forcing the air out of them. Chips are discharged into the caustic soda reactor where they expand into a sponge-like mass which becomes completely impregnated with caustic.

Cold soda processing has grown very rapidly since 1956. It is estimated that about 300,000 tons of pulp were made by the various cold soda processes in 1960. Commercial use of this new continuous process could increase this figure rapidly.

TECHNICAL DEVELOPMENTS

Information about manufacturers of these items may be obtained by writing U.S.I.

Dehydrated firefly tails now available for biochemical research. Can be processed into extract used to measure ATP (adenosine triphosphate). ATP, added to extract, produces light in proportion to quantity of ATP present. **No. 1670**

Pliable, easily cut refractory sheet for laboratory use is now on market. Reported to be excellent insulator when hardened in air or 350°F even. Suggested for hand grips, pump jackets, insulation for vessels, small ovens. **No. 1671**

New, highly-purified form of cellulose for food, drugs, cosmetics, now obtainable in research quantities. Said to give very firm, stable, opaque, creamy gels that are smooth, odorless, tasteless, non-caloric. In dry, free-flowing form, said to absorb fats and oils. **No. 1672**

New "Journal of Chemical Documentation" to be published twice a year, starting in 1961. Designed to ease dissemination of chemical information. Will cover such topics as information services, machine processing of information, resources of nations on specific subjects. **No. 1673**

Treating polyethylene film for printability is covered in new booklet now available. Discusses physical treatments by flame and the more adaptable electronic methods. **No. 1674**

High-purity isophthaloyl and terephthaloyl chlorides now produced in semi-commercial quantities. Suggested as raw materials for new synthetic fibers; intermediates for pigments, drugs, adhesives, rubber. **No. 1675**

Continuous addition of liquids to solids in precise amounts is reportedly achieved by new process recently developed. Thorough mixtures are provided at rates from 500 pounds to 150 tons per hour, it is claimed. **No. 1676**

New polycyclic alcohol is said to supply perfumer with all desirable characteristics of natural sandalwood oil—in a single aromatic chemical. Reported to have better residual properties than sandalwood itself. **No. 1677**

Use of radioactivity in developing and employing pharmaceutical agents is subject of 180-page book now being sold. In series of papers, experts discuss uses in analysis, product development and evaluation, tracing of drugs. **No. 1678**

Microporous cellulose acetate membrane is offered as improved medium for electrophoresis. Advantages claimed: speed, sharp separation, reproducibility, sample economy, chemical inertness, membrane strength, broad scope. **No. 1679**

PRODUCTS OF U.S.I.

Heavy Chemicals: Anhydrous Ammonia, Ammonium Nitrate, Nitric Acid, Nitrogen Fertilizer Solutions, Phosphatic Fertilizer Solution, Sulfuric Acid, Caustic Soda, Chlorine, Metallic Sodium, Sodium Peroxide.

Organic Solvents and Intermediates: Normal Butyl Alcohol, Amyl Alcohol, Fusel Oil, Ethyl Acetate, Normal Butyl Acetate, Diethyl Carbonate, DIATOL®, Diethyl Oxalate, Ethyl Ether, Acetone, Acetoacetanilide, Acetoacet-Ortho-Chloranilide. Acetoacet-Ortho-Toluidide, Ethyl Acetoacetate, Ethyl Benzoylacetate, Ethyl Chloroformate, Ethylene, Ethyl Sodium Oxalacetate, Sodium Ethylate, Urethan U.S.P. (Ethyl Carbamate), Riboflavin U.S.P.

Pharmaceutical Products: DL-Methionine, N-Acetyl-DL-Methionine, Urethan USP, Intermediates.

Ethyl Alcohol: Pure and all denatured formulas; Anhydrous and Regular Proprietary Denatured Alcohol Solvents SOLOX®, FILMEX®, ANSOL®M, ANSOL PR

PETROTHENE® . . . Polyethylene Resins

MICROTHENE . . .Finely Divided Polyethylene Resin.

Animal Feed Products: DL-Methionine, MOREA® Premix (to authorized mixer-distributors).

U.S.I. INDUSTRIAL CHEMICALS CO.
Division of National Distillers and Chemical Corporation
99 Park Avenue, New York 16, N. Y.

U.S.I. SALES OFFICES

Atlanta • Baltimore • Boston • Chicago • Cincinnati • Cleveland
Detroit • Kansas City, Mo. • Los Angeles • Louisville • Minneapolis
New Orleans • New York • Philadelphia • St. Louis • San Francisco

Nitrogen tetroxide, indust., tankcars, f.o.b. Hopewell, Va. lb. .065 - —
Cyls., t.l., min. 5 tons, same basis lb. .07¼- —
Cyls., l.c.l., l.t.l., same basis lb. .15 - —
Nitrogenous process tankage, bulk, works..unit-ton. 4.50 - 5.00
Nitrogenous sewage sludge, bulk, f.o.b. Chicago, works. unit-ton. 3.50 - —
Nitromethane dms. t.l., divd. E lb. .25 - —
dms., l.t.l., divd. E.....lb. .26½ —
Nitromethane prices West of Rockies are 1c higher.
a-Nitronaphthalene, bbls., frt. alld. lb. .31 - —
o-Nitrophenol, dms., works, frt. equald lb. .94 - —
p-Nitrophenol, dms., c.l., frt. alld. lb. .45 - —
dms., l.c.l., frt. alld.....lb. .47 - —
1-Nitropropane, dms., c.l., frt. alld. E. of Rockies lb. .23½- —
dms., l.c.l., same basis .....lb. .25 - —
tanks, same basis .....lb. .21 - —
2-Nitropropane, dms., c.l., frt. alld. E. of Rockies lb. .18½- —
dms., l.c.l., same basis.....lb. .20 - —
tanks, same basis .....lb. .16 - —
Nitropropane prices West of Rockies are 1c. per lb higher.
m-Nitrotoluene, tech., dms., frt. alld. lb. .50 - —
o-Nitrotoluene, dms., c.l., frt. alld lb .15 - —
dms., l.c.l., frt alld. .....lb. 16 - —
tanks, frt. alld. .....lb. .13 - —
p-Nitrotoluene, tech., cast, dms., c.l., works lb. .27½- —
dms., l.c.l., works .....lb. .28 - —
flake, dms., c.l., t.l., works. lb. .27½- —
dms. l.c.l. works.....lb. .28 - —
m-Nitro-p-toluidine, dms. .....lb. 1.25 - —
Nonylphenol, dms., c.l, frt. alld. lb. .22½- —
dms., l.c.l., frt. alld.....lb. .23½- —
tanks, frt. alld. .....lb. .20 - —
Nonylphenol prices on shipments to Western States are 2c. higher.
Nutmegs, East Indian, whole, bgs. lb. 1.40 - —
West Indian, bgs. .....lb. 1.26 - 1.28
Nutmeg oil USP dist., East Indian, cns lb. 9.00 -12.00
West Indian, cns. .....lb. 9.00 -12.00
Nux vomica, bls. .....lb. .20 - —
Powd., bbls., bxs. .....lb. .20 - .22

O

Ocher (see Iron oxide yellow, nat.).
Ocotea cymbarum oil, dms.....lb. .46 - .48
Octane, indust., tanks, Bayonne, N.J. gal. .20 - —
1-Octanol, tech., dms., c.l., divd., Zone 1 lb. .43½- —
dms., l.c.l., divd. Zone 1—lb. .45½- —
tanks, divd., Zone 1.....lb. .41 - —
Octyl alcohol, perfumers grade, bots, lb. 1.60 - 3.25
Octyl alcohol, tech. (see 1-Octanol, tech).
tert-Octylamine, dms., c.l., t.l., f.o.b. works lb. .54½- —
dms., l.c.l., same basis lb. .55 - —
Octylphenol, bgs., c.l., works..lb. .22½- —
bgs., l.c.l., works.....lb. .23 - —
tanks, works .....lb. .21½- —
Octylphenol in dms., 11c. higher.

OILS
Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.

Oiticica oil, liq., dms.....lb. .14¼- .14¾
tanks .....lb. .12¾- —
Oleic acid, dbl.-dist. (white), dms. lb. 17 - .19½
tanks .....lb. .14½- —
S. D., dms. .....lb. .16 - .18½
tanks .....lb. .13½- —
Oleum (see Sulfuric acid, fuming).
Olibanum gum, siftings, cs.....lb. .15 - .20
Tears, cs. .....lb. .22 - .30
Olibanum oil, bots.....lb. 5.00 - 7.65
Extra fine, bots.....lb. 8.00 - 9.50
Olive oil, edible, dms., spot, duty-paid..gal. 2.35 - 2.40
Olivine, crude, works.....ton.12.00 - —
20 mesh, works.....ton.15.00 - —
100 mesh works.....ton.20.00 - —
Opium, USP, cns., 25-lbs., f.o.b. works..oz.19.20 - —
gran., cns., 50 lbs., same basis. oz.21.65 - —
powd., cns., 50 lbs., same basis. oz.21.65 - —
Orange oil, expressed, USP, Calif., cns., dms..lb. .70 - .90
Calif., sweet., cns., dms.....lb. .60 - —
Florida, cns., dms.....lb. .40 - .45
Messina, cns. .....lb. 3.25 - 5.00
West Indian, bitter, cns., dms., lb. 2.50 - 3.50
Orange peel, bitter, Haitian, bls. lb. .18 - .20
Sweet .....lb. .28 - .30

ORANGE PIGMENTS
Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.

Origanum oil, Spanish, cns.....lb. 1.80 - 2.30
Orris root, Florentine, bls.....lb. .55 - —
powd., bbls., bxs.....lb. .65 - —
Verona, bls.....lb. .35 - —
powd., bbls., bxs.....lb. .45 - —
Orthoanisidine (see o-Anisidine).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde).
Orthochloroaniline (see o-Chloroaniline).
Orthochlorobenzoic acid (see o-Chlorobenzoic acid).
Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline).
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol).
Orthocresotinic acid (see 2,3-Creosotic acid).
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroaniline (see o-Nitroaniline).
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol).
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidine (see o-Phenetidine).
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary amylphenol (see o-tert-Amylphenol).
Orthotolidine (see o-Tolidine base).
Orthotoluidine (see o-Toluidine).
Ouabain, USP, bots.....gram. 3.00 - 4.00
Ouricury wax, crude, bgs. .....lb. .54 - .55
Refd., pure, bgs. .....lb. .60 - .62
Oxalic acid, bgs., c.l., works..lb. .18 - —
bgs., 10,000-lb. lots, works....lb. .19 - —
bgs., smaller lots, works.....lb. .20½- —
Oxalic acid in drums is priced ½c. per lb. higher.

b-Oxynaphthoic acid, pigment manufacture, dms., frt. alld lb. .912 - —
Dyestuff manufacture, dms., same basis lb. 1.03 - 1.14
Oxyquinolin sulfate, cns., 100-lb. lots, works lb. 4.75 - 5.00
cns., smaller lots, works.....lb. 4.92 - 5.17

P

Palm oil, clarif., dms.....lb. .1400- .1500
tanks .....lb. .11¼- —
Palm oil acid, double dist., dms.lb. .15¼- .17¾
single dist., dms.....lb .14¾- .17¼
tanks .....lb. .12¼- —
Palmarosa oil, cns.....lb. 4.90 - 6.00
Papain, powd., bots. .....lb. 5.50 -10.00
Papaverine hydrochloride, nat. or syn., USP, cns., 25-oz. to 100-oz. lots oz. 5.00 - —
cns., smaller lots. .....oz. 5.05 - 5.20
Papaverine sulfate, nat. or syn., USP, cns oz. 7.10 - 7.35
Paprika, Bulgarian, bgs. .....lb. .27 - —
Hungarian, bgs. .....lb .29 - —
Spanish, bgs. .....lb. .30 - —
Yugoslavian, bgs. .....lb. .31 - .37
Para-aminobenzoic acid (see p-Aminobenzoic acid).
Parachlorobenzoic acid (see p-Chlorobenzoic acid).
Paramethylphenylcinchonic acid (see Neocinchophen).
Paranitrobenzoic acid (see p-Nitrobenzoic acid).
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).
Para-aminophenol (see p-Aminophenol).
Parachlorophenol (see p-Chlorophenol).
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).
Para-anisidin (see p-Ansidine).
Parachloraniline (see p-Chloraniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Paracresol (see p-Cresol).
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).
Para toner, red, bbls.....lb. 1.30 - —
Chlorinated, kgs. .....lb. 1.41 - —
Paraffin, crude, scale, white, 123°-127°F., ASTM, tanks, refy. lb. .0655- .0660
Paraffin, fully refd., 122°-124°F., ASTM, tanks, refy..lb. .0765- —
125°-127°F., ASTM, tanks, refy. lb. .0765- —
130°-132°F., ASTM, tanks, refy. lb. .0765- —
Paraffin, fully refd., 132°-134°F., ASTM, tanks, refy..lb. .0765- —
135°-137°F., ASTM, tanks, refy. lb. .0765- —
AMP temperatures are an arbitrary 3°F. higher than ASTM.
Paraffin oil, pale, 100-110 vis., at 100°F., tanks east coast refy gal. .14 - —
Paraffin wax (see Paraffin)
Paraformaldehyde, 91%, flake, bgs., c.l., frt. alld lb. .10 - —
bgs., l.c.l., frt. alld lb. .12 - .13
91%, powd., bgs., c.l., ex whse.lb. .1715- —
bgs., l.c.l., ex whse.....lb. .1865- —
USP-X, fib. dms., c.l. .....lb. .19 - —
fib. dms., 1,000-lb. lots .....lb. .20 - —
fib. dms., smaller lots lb. .21½- —
Paraldehyde, tech., 98%, 55-gal. dms., t.l., divd lb. .14 - —
55-gal. dms., l.c.l., divd....lb. .15 - —
tanks, divd. .....lb. .11½- —
Paranitroaniline (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene).
Paranitrotoluene (see p-Nitrotoluene).
Paranitrophenol (see p-Nitrophenol).
Paraphenetidine (see p-Phenetidine).
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol (see p-Phenylphenol).
Para-tertiary-amylphenol (see p-tert-Amylphenol).
Para-tertiary butylphenol (see p-tert-Butylphenol).
Parathion ethyl, dms. frt. alld lb. .84 —
Parathion prices 2c. per lb. higher in West.
Paratoluenesulfonamide (see p-Toluenesulfonamide).
Passion flower herb, bls.....lb. .35 .40
Patchouli oil, imp., cns. .....lb. 5.60 6.50
Peach kernel oil USP (see Apricot kernel oil).
Peacock blue, fugitive, 100% color strength, 250-lb. bbls., divd E of Rockies lb. 1.00 —
Peacock blue price 1c. higher W. of Rockies
Peanut meal, old process, 45%, bgs., f.o.b. mills..ton.55.50 - —
solvent, same basis..... ton.52.50 - —
Peanut oil, crude, tanks, f.o.b. mills. lb. .13 - —
Refd., dms. .....lb. .18¼- .18½
tanks .....lb. .16¼- —
Pectin, dom., NF, citrus, powd., 100 kilos, f.o.b. shipt. pt kilo. 4.52 - —
Pelargonic acid, dms., c.l., divd. lb. .25 - —
ton lots, same basis .....lb. .27½- —
tanks, same basis .....lb. .23½- —

Now producing
High purity
REFRACTORY PERICLASE

Now in successful operation, the seawater magnesia plant of Michigan Chemical Corporation at Port St. Joe, Florida is producing high-purity refractory periclase which meets exacting specifications and is available in lump or crushed form for shipment by rail, truck, barge and ocean vessel.

A complete series of magnesium oxides also is available from the Florida plant as well as from the company's Saint Louis, Michigan unit. If active or light density products are required, these can be supplied from either facility.

For samples, data and prices, phone or wire Magnesia Sales Division, Saint Louis, Michigan — or contact your nearest Michigan Chemical Representative.

MC

MICHIGAN CHEMICAL CORPORATION

710 North Bankson Street, Saint Louis, Michigan
Eastern Sales Office: 230 Park Avenue, New York 17, New York

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84-60-3

Penicillin, potassium, cryst., bulk, 1,000,000 units....018 - —
Penicillin, procaine, cryst., bulk, 1,000,000 units. .020 - —
Pennyroyal oil, USP, imported, cns. lb. 1.95 2.70
Pentachlorophenol, bgs., c.l., t.l., works, frt. equald lb. .21 —
bgs., l.c.l., same basis lb. .22½- .29
Pentachlorophenol in dms. 1c. higher.
Pentaerythritol, tech., bgs., c.l., dlvd lb. .31 - —
bgs., l.c.l., dlvd. lb. .32 - —
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).
Pentane, indust., tanks, f.ex refy gal. .14 - —
Pentobarbital, dms., 100 lbs. or more lb. 6.00 - —
Pepper, black, Malabar, bgs.... lb. .47 - —
Lampong, bgs. ..... lb. .47 - —
Red, Funtuas, bgs. ..... lb. .32 - —
Japanese, Hontoka, bgs. ... lb .37½- —
Santaka, bgs. ..... lb. .31½- —
Sudanese, bgs. ..... lb. .36 - —
White, Muntok, bgs ..... lb. .74 - —
Peppermint leaves, dom., USP, bls., cms lb. No stocks.
imp., USP, dms. ..... lb. .85 - .90
Peppermint oil, nat., dms..... lb. 4.90 - 5.25
Redist., USP, dms ..... lb. 5.50 - —
Perchloroethylene, dms., c.l., or t.l., dlvd lb. .13½- —
dms., l.c.l., dlvd. lb. .15¼- —
tanks, dlvd. lb. .11¾- —
tanktruck, 1,000 gal. min. dlvd lb. .12¼- —
Peri acid, dry bbls., frt. alld lb. 1.60 —
Paste, bbls. frt alld lb 1.55 —
Peru balsam, dms. lb 1.10 1.50
Persic oil, USP (see Apricot kernel oil).
Petitgrain oil, South American, cns., dms lb. 2.30 - —
Petrolatum, cream, dms., c.l., refy. lb. .08125- —
dms., t.c.l., dlvd. ..... lb. .10125-.11375
tanks, refy. ..... lb. .05875- —
Extra amber, dms., c.l., refy lb. .07125- —
dms., t.c.l., dlvd. .... lb. .09125-.10375
tanks, refy. ..... lb. .04875- —
Petrolatum, lily white, dms., c.l., refy lb. .08625- —
dms., t.c.l., dlvd. ..... lb. .10625- .13
tanks, refy. ..... lb. .06735- —
USP, snow white, dms., c.l., refy. lb. .09125- —
dms., t.c.l., dlvd lb. .11125- .125
tanks, refy. lb. .06875- —
Petrolatum, USP, soft yellow, dms., c.l., refy lb. .07125- —
dms., t.c.l., dlvd. lb. .095 -.10375
tanks, refy. lb. .04875- —
Petroleum pitch (see Asphalt, petroleum).

PETROLEUM PRODUCTS

Petroleum product quotations are listed individually For example, prices on Petroleum, mineral spirits, may be found in the M's under Mineral spirits, petroleum.

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret dms., c.l., works, lb. .16½- .18¾
non-ret. dms., t.c.l., works lb. .17½- .19
tanks, works lb. .14½- .17
50-55% sulfuric content, non-ret. dms., c.l., works lb. .16 - —
non-ret. dms., t.c.l., works lb. .17 - —
tanks, works lb. .13 - —
o-Phenetidine, dms., c.l., frt. alld. E lb .91 - —
dms., t.c.l., same basis lb .93 - —
p-Phenetidine, dms., c.l., frt. alld. lb 1.05 - —
dms. same basis lb 1.08 - —
Phenobarbitol, USP, dms., 100-lbs., frt. alld lb. 3.25 - —
Phenobarbital-Sodium (see sodium phenobarbital).
Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt. alld. E of Rockies lb. .16¾- —
non-ret. dms., t.c.l., same basis. lb. .17¾- —
tanks, same basis lb. .14¾- —
82-84% (cresol 16-18%) non-ret. dms., c.l., same basis lb. .16½- —
non-ret dms., t.c.l., same basis. lb. .17½- —
tanks, same basis lb. .14½- —
30°C., or above, tar dist., non-ret. dms., c.l., same basis lb. .18 - —
Phenol, 30°C., or above, tar dist., non-ret. dms., t.c.l., same basis. lb .19 - —
tanks, same basis..... lb. .16 - —
USP, syn., dms., c.l., t.l., frt. alld. lb. .19½- —
dms., t.c.l., same basis.... lb. .21½- —
tanks, same basis..... lb. .17½- —
Phenolphthalein, USP or yellow, 250-lb. dm., 2,000 lbs., frt. alld lb. 1.30 - —
250-lb dm., same basis lb 1.35 - —
Phenothiazine drench, fib dms., t.l., dlvd. lb. .46 - —
fib. dms., ton lots, dlvd..... lb. .49 - —
NF, fib. dms., t.l., dlvd ..... lb. .45 - —
fib. dms., ton lots, dlvd..... lb. .48 - —
Phenyl acetate, dms., 100-lb. lots, works lb. .50 - —
Phenyl salicylate (see Salol).
Phenylacetaldehyde, soln., 50%, bots lb. 2.15 - 2.35
100%, bots. ..... lb. 3.80 - 4.00
Phenylacetic acid, pure, cryst., cns. lb. 1.25 1.75
dl-Phenylalanine, dms., works lb.27.00 -37.50
1-Phenyl-3-carbethoxy pyrazolone-5, fib. dms., 200-lb. lots, dlvd. E lb. 3.45 - —
fib dms., smaller lots, dlvd. E lb. 3.80 - —
N-Phenyldiethanolamine, dms., c.l., dlvd. E lb. .41 - —
dms., t.c.l., dlvd. E. ..... lb. .42½- —
tanks, dlvd E lb. .38½- —
m-Phenylenediamine, dms., c.l., t.l., frt. alld. lb. 1.08 - —
t.c.l., t.t.l., same basis..... lb. 1.10 - —
o-Phenylenediamine, comi, fib. dms, 100 to 1,000 lbs., works. lb. 1.70 - 1.80
p-Phenylenediamine, tech., dms, works lb. 1.55 - —
Phenylethanolamine, dms., c.l., works lb. .75½- —
dms. t.c.l., same basis lb. .77 - —
Phenylethyl acetate bots. lb. 1.25 1.40
2-Phenylethyl alcohol, extra, dms. lb. 1.14 1.50
Standard, dms lb. 1.10 1.60
b-Phenylethylamine, dms., 20,000 lbs. or more, frt. alld lb. 1.50 —
dms. smaller lots, frt alld lb. 1.70 1.85
Phenylethylphenyl acetate, bots lb. 4.00 4.25
Phenylglyconic acid (see Mendelic acid).
Phenylhydrazine 97%, 450-lb. dms. lb. 1.45 - —
1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb. lots, dlvd E. lb. 1.80 - —
fib dms., smaller lots, dlvd E lb. 2.10 - —
o-Phenylphenol, dms., t.c.l., works. lb. .48 - .50
p-Phenylphenol, bgs., c.l., works. lb. .38½- —
bgs., t.c.l., works ..... lb. .43 - —
Philippine copal gum, pale, chips, bgs lb. .23¾- .26
nubs, bgs. ..... lb. .33¼- .37
seeds, bgs. ..... lb. .20 Nom.
sorts, bgs. ..... lb. .20 .24
Phlorogiucinol, comi., fib. dms., works lb. 6.40 - —
CP, bots., works ..... lb.17.75 - —
Tech., fib dms., works lb.10.45 - —
Phloxin red toner (see Eosin red toner).
Phosgene, ret. cyls., works lb. .15½- —
Phosphate, defluorinated (see under D).
Phosphate rock, Curacao, Atlantic ports, New Orleans ton.46.50 - —
Phosphate rock, Florida, land pebble, run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.l., mines, short-ton. 4.989 - 5.398
68-70%, b.p.l., bulk, c.l., same basis short-ton. 5.849 5.858
70-72%, b.p.l., bulk, c.l., same basis short-ton. 6.429 - 6.438
Phosphate rock, Florida, land pebble, run of mine, washed, dried, unground, 74-75%, b.p.l., bulk, c.l., same basis, short ton. 7.329 - 7.338
76-77%, b.p.l., c.l., bulk, same basis short-ton. 8.219 8.228
Above Florida prices are based on fuel oil at 2.52 per bbl. and labor at $1.64.
Phosphoric acid, food grade, 75%, cbys., c.l., works, E., frt. equald 100 lbs. 7.00 —
cbys., t.c.l., same basis 100 lbs. 7.25 7.75
tanks, t.w., works 100 lbs. 5.60 —
80% cbys., c.l. frt equald 100 lbs. 7.85 —
cbys., t.c.l., works 100 lbs. 8.10 9.35
tanks, t.w., works 100 lbs. 6.00 —
NF 85%, cbys., c.l., works. 100 lbs. 8.50 —
cbys., t.c.l., works 100 lbs. 8.75 9.00
tanks, t.w., works 100 lbs. 6.65 —
Phosphorus, amorpn., red, dms., t.l., works lb. .55 —
dms., smaller lots, works lb. .56 .57
white (yellow), solid, dms., c.l., works, frt. equald lb. .20 .20½
dms. t.c.l. works, frt. equald lb. .21½- —
tanks, works, frt. equald, lb. .19 - —
Phosphorus oxychloride, dms., c.l., works lb. .14 - —
dms., t.c.l., works lb. .15 - —
tanks, works frt equald lb. .12½- —
Phosphorus pentasulfide, powd., dms., c.l., works lb. .13½- —
dms. t.c.l. works ..... lb. .14½- .15½
Solid, dms., c.l. works..... lb. .11½- —
dms. t.c.l. works ..... lb. .12¼- .13½
Phosphorus pentoxide, dms., c.l., works lb. .1375- .1475
dms. t.c.l. works lb. .1475- .1675
Phosphorus sesquisulfide, dms., cs., c.l., works lb. .38 —
dms. t.c.l., works lb. .39 - .40
Phosphorus trichloride, dms., c.l., works lb. .14 - —
dms., t.c.l., works ..... lb. .15 - —
tanks, works ..... lb. .12½- —
Phthalic anhydride, bgs., c.l., works, frt. equald lb. .20 - .23
bgs., t.c.l., same basis ..... lb. .21 - .24
tanks, same basis ..... lb. .19½- .22½
Phthalimide 97-98%, dms., frt. alld lb. .65 —
Phthalocyanine blue, full strength, bbls. dlvd E of Rockies. lb. 2.90 - —
Resinated, bbls., same basis lb. 2.75 - —
Water dispersable, bbls., same basis lb. 1.52 —
Phthalocyanine blue prices 1c. higher W. of Rockies.
Phthalocyanine green toner, bbls., works lb. 3.35 - —
Resinated, bbls. lb. 3.00 - —
Water dispersable, bbls. ..... lb 1.71 - —
Phthalocyanine green prices 1c. higher W of Rockies
Phthalylsulfacetamide, fib. dms., 1,000-lb. lots or more lb. 5.00 - —
NF, fib. dms. lb. 5.20 - —
a-Picoline, dms. c.l., works, frt. equald lb. .46 - .48
dms., t.c.l., works, frt. equald lb. .46½- .49
tanks, same basis ..... lb. .43 - .46
b-Picoline, 98% dms., t.l., works. lb. 1.05 - —
dms., t.c.l., same basis..... lb. 1.15 - —
tanks, same basis ..... lb. .95 - —
b,g-Picoline, 5°C. dms., c.l., works. lb. .32½- —
dms., t.c.l., works ..... lb. .33 - —
g-Picoline, dms., f.o.b., works lb. 1.60 - —
tanks, t.l. same basis..... lb. 1.50 - —
Picric acid, NF, bbls. ..... lb. .85 - —
Tech., bbls. ..... lb. .44 - —
Pigment green B, kgs ..... lb. 1.55 - —
Pilocarpine hydrochloride, USP, bots oz. 5.25 - —
Pilocarpine nitrate, USP, bots., vials. oz. 5.15 - —
Pimento, Jamaincan, bgs. ..... lb. .68½- —
Mexican, bgs ..... lb. .56 - —
Pimento berry oil, NF, dms. .... lb. 3.75 9.25
Pimento leaf oil, crude, cns ..... lb. 2.50 - 2.60
Pine oil, dest.-dist., dms., t.c.l. works lb. .15 - —
dms., t.c.l ex whse New York. lb. .173 - —
Steam-dist. dms. ex whse., New York lb. .185 - —
dms., dlvd lb. .188 —
Pineneedle oil, Siberian (see Abies Siberoca oil).
Pink root, bls. ..... lb. 2.25 - —
Piperazine, anhyd., dms., c.l., frt. alld lb. 1.80 - —
dms., t.c.l., same basis lb. 1.85 - —
Piperazine citrate, 36%, dms., 1,000 lbs or more, frt. alld lb. 1.15 - —
Piperazine dihydrochloride, 51%, dms., 1,000 lbs. or more, frt. alld lb. 1.23 - —
Piperazine hexahydrate, 44%, dms., 1,000 lbs or more, frt. alld lb. .86 - —
dms., 200-900 lbs., frt. alld lb. .89 - —
Piperazine phosphate, 42%, dms., 1,000 lbs. or more, frt. alld lb. 1.06 - —
Piperidine, dist., 98% min., dms., c.l., t.l., frt. equald lb. 2.55 - —
Piperonyl butoxide dms., dlvd. E.lb. 4.50 5.05

PITCHES

Pitch quotations are listed individually For example, prices on Pitch, soybean, may be found in the S's under Soybean pitch.

Platinum metal, works ..... oz.61.00 -65.00
Pleurisy root, bls. ..... lb. .45 .50
Podophyllum resin, NF, dms. .... lb.12.50 - —
Poke root, bls. ..... lb. .19 - .22
Polymyxin, bots., bulk., 50 billion units or more 1,000,000 units. .52 - —
bulk, bots., 25-50 billion units. 1,000,000 units. .54 - —
bulk, bots., 1-25 billion units. 1,000,000 units. .56 - —
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works lb. .42 - —
dms., 10,000-20,000-lb. lots, works. lb. .44 - —
dms., smaller lots, works lb. .47 - .49
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb lots, works lb. .42 - —
dms., 10,000-20,000-lb. lots, works lb. .44 - —
dms., smaller lots, works lb. .47 - .49
Pontianak copal gum, chips, bgs lb. .25 - —
Nubs, bgs. ..... lb. .37 - .40
Poppy seed, Argentine, bgs. ... lb No stocks.
Dutch, bgs. ..... lb. .16 - —
Danish, bgs. ..... lb. .15 - —
Polish, bgs. ..... lb. .16 - —
Turkish, bgs. ..... lb. .12 - —
Potash, caustic, liq., 45% basis, dms., c.l., works 100 lbs 4.25 - —
dms., t.c.l., same basis 100 lbs 5.25 - —
tanks, same basis 100 lbs 3.70 - —
reg., flake, 88-92% dms., c.l., same basis 100 lbs. 9.55 - —
Potash, reg., flake, 88-92%, dms., t.c.l., same basis 100 lbs.11.05 - —
solid, 88-92% dms., c.l., works 100 lbs. 9.10 - —
dms., t.c.l., works 100 lbs.10.60 - —
Potassium acetate, NF, 200-lb. dm., f.o.b. works, E lb. .31 - —
Potassium bicarbonate, USP, gran. dms lb. .22 - —
powd., dms. lb. .24 - —
Potassium bichromate, gran., bgs., c.l., t.l., works lb. .18 - —
bgs., t.c.l., works lb. .18½- .19¾
Potassium bichromate in dms. ¾c. higher.
Potassium bitartrate, NF, gran., powd., 100-lb bgs., c.l., frt. equald lb. .37 - —
100-lb. bgs., 5,000 lbs. 1 shipt., same basis lb. .38 - —
100-lb. bgs. smaller lots, same basis lb. .40 - —
Potassium borohydride, powd., dms., works lb.16.00 -22.00
Pelletized potassium borohydride $1.25 per lb. higher in 1,000-lb lots
Potassium bromate, 200-lb. dms., c.l., frt. alld lb. .49 - —
Potassium bromide, USP, gran., bbls., kgs lb. .39 - .40
Potassium carbonate, dom., NF, gran. bbls., dms lb. .20 - —
Dom. tech. powd., bbls., dms lb. .21 - .22
Dom., calcinated, bgs., c.l., works. 100 lbs. 8.50 - —
bgs., t.c.l., same basis 100 lbs. 9.55 - —
Dom., hydrated, 83-85%, bgs., c.l., works 100 lbs. 7.10 - —
bgs., t.c.l., works 100 lbs. 8.15 - —
Potassium chlorate, cryst, dms., c.l., works lb. .12¼- —
dms., t.c.l., works lb. .13½- .14½
Powd., dms., c.l., works lb. .12¾- —
dms., t.c.l., works lb. .14 - .15
works lb. .12¼- —
Potassium chlorate, NF, cryst., dms., 2,000 lbs or more, works lb. .16¾- —
NF, gran., 25-lb metal dms lb. .36 - —
NF powd., dms., 2,000 lbs. or more, works lb. .17¼- —
Potassium chloride indust., 99.9% KCL, bulk, c.l., works ton.29.00 - —
bgs., c.l., works ton.34.00 - —
99.3% KCL, bulk, c.l., works. ton.28.00 - —
bgs., c.l., works ton.33.00 - —
USP, cryst., dms. lb. .20 - .22
USP, gran., dms. lb. .21 - .23
USP, powd., dms. lb. .24 .26
Potassium chloride agricultural (see Potassium muriate).
Potassium chromate, tech., dms., works lb. .50 - .51
Potassium citrate, NF, gran., 250-lb. dms., f.o.b. works E lb. .43 - —
powd., 250-lb dms., same basis. lb. .46 - —
Potassium cyanide, dms., 20,000-lb. lots or more, works lb. .42½- —
dms., 2,000-19,999-lb lots, works. lb. .43 - —
dms., smaller lots, works lb. .44 - .44½
Potassium dichromate (see Potassium bichromate).
Potassium ferricyanide, dms., ton lots, works lb. .50 - —
dms., smaller lots works lb. .65 - —
Potassium ferrocyanide, dms., ton lots lb. .24½- —
dms., smaller lots lb. .29 - —
Potassium fluoborate, fib dms., c.l., works lb. .30 - —
fib dms., t.c.l., works lb. .31 - —
Potassium fluoride, dms., works lb. .36 - .37
Potassium gluconate, 100-lb dm., f.o.b works E lb. 1.67 - —
Potassium guaiacol sulfonate, NF, dms lb 2.10 2.30
Potassium hydroxide, tech (see Potash caustic).
Potassium hydroxide, USP, pellets, 100-lb dms. 1 to 100-dm. lots lb. .33½- .38
Potassium hypophosphite, NF, fib. dms., 1,000-lb lots lb. 1.38 - —
Potassium iodide, USP cryst., gran., dms., 500-lb., f.o.b. works. lb. 1.53 - —
Potassium manure salt, min. 20% K₂O, bulk, c.l., works, unit-ton. .17 - .1765
Potassium metabisulfite, gran. dms., lb. .16 - —
Powd., dms lb. .27 - —
Potassium muriate, standard, bulk, c.l., works unit-ton. .37½- .39½
bagged 60% minimum K_2O, same basis ton.26.60- .27.80
Gran., bulk, c.l., works unit-ton. .38½- .40½
bagged, 60% minimum K_2O, same basis ton.28.10 -30.10
Inside prices apply to material contracted for prior to July 1, 1960.
Outside prices apply to material contracted for after that date but also for delivery during the current month.
Potassium nitrate, NF, cryst., bbls., 20-ton lots 100 lbs.17.00 - —
bbls., smaller lots 100 lbs.18.00 -19.00
gran., bgs., 20-ton lots 100 lbs. 9.50 - —
bgs., smaller lots 100 lbs.11.00 -12.00
powd., bgs., 20-ton lots 100 lbs.10.50 - —
bgs., smaller lots 100 lbs.12.00 -13.00
Potassium oxalate, neutral, tech., fine gran., powd., 300-lb. dm., f.o.b works E lb. .32 - —
Potassium pentaborate, gran., dms., c.l., works ton.219.50 - —
dms., ton lots, ex whse ton.311.00 - —
dms., smaller lots, ex whse ton.316.00 - —
Powdered potassium pentaborate $10 per ton higher.
Potassium perchlorate, dms., c.l., works lb. .18½- —
dms., t.c.l., works lb. .19 - .20
Potassium permanganate, comi., kgs., works lb. .25 - .33
USP, dms., works lb. .29 - .35
Potassium persulfate, dms., c.l., works lb. .17½- —
dms., t.c.l., works lb. .18 - .21
Potassium pyrophosphate, tetrabasic, dms., works lb. .1475- .1575
Potassium prussiate red (see Potassium ferrocyanide)
Potassium prussiate yellow (see Potassium ferro-cyanide).
Potassium silicate, electrical grade, 30° Be, 1.2.0, dms., c.l., works 100 lbs. 6.50 - —
dms., t.c.l., 5 dm. lots or more, works 100 lbs. 7.25 - 7.65
tanks, works 100 lbs. 6.15 - —
Potassium silicate, electrical grade, 40.5° Be, 1:2.1, dms., c.l., works 100 lbs. 5.95 - —
dms. t.c.l., 5 dm. lots or more, works 100 lbs. 6.70 - —
tanks, works 100 lbs 5.60 - —
Potassium silicate, glass grade, bgs., c.l., works 100 lbs.17.30 -18.00
bgs. t.c.l. works 100 lbs.17.80 —
Soln., 29° Be 1:2.5, dms., c.l., works 100 lbs. 4.95 - —
dms. t.c.l., 5-dm lots or more, works 100 lbs. 5.70 - —
tanks, works 100 lbs 4.60 - —
Potassium silicofluoride, bgs., works lb .09½- .10
Potassium silicofluoride in drums, 0.4c. per lb higher
Potassium stannate, dms. frt. alld. E lb. .780 - .853
Potassium sulfate, min 50% K_2O, agricultural, bulk, c.l., works unit-ton. .70½- .72½
Inside price applies to tonnage contracted for prior to July 1, 1960
Outside price applies to tonnage contracted for after that date but also for delivery during the current month
Potassium sulfate, NF VII, cryst., dms. lb. .31 .33
NF VII, gran., 400-lb. dm ... lb. .18 - —
NF VII, powd., 400-lb. dm ... lb. .17 - —
Potassium sulfocyanate, NF, cryst., (see Potassium thiocyanate)
Potassium thiocyanate, NF, cryst., dms., works lb. .96 .98
Tech. dms., works lb. 77 .79
Potassium titanate, ctns., c.l., works. lb. .16¼- —
ctns. 5-ton lots, works lb. .16½- —
ctns., 1-ton lots or less, works lb. .16¾- —
Potassium-magnesium sulfate, basis 40% K_2SO_4 and 18% MgO, bulk, works, base price. ton.13.45 - —
bulk, works, July forward ton.14.00 - —
Potassium-sodium tartrate, NF gran. or powd., 250-lb. dms., c.l., works E lb. .42½- —
250-lb dms., 5,000-lb. lots, same basis lb. .43 - —
250-lb. dms., same basis lb. .43½- —
Potassium-titanium fluoride, fib. dms., works lb. .39 .40
Potassium-zirconium flouride, fib. dms., c.l., works lb. .50 —
fib dms., t.c.l., works lb. .52½- .55
Pregnenolone, bots. gram. No prices.
Pregnenolone acetate, bots. gram. No prices.
Procaine hydrochloride USP antibiotic grade dms., 2,000-lb. lots, frt. alld lb. 2.25 - —
USP, ampule grade, dms., 1,000-lb. lots, frt. alld lb 2.40 - —
dms., 500 lbs ..... lb 2.45 - —
dms., 100 lbs ..... lb. 2.50 - —
Progesterone, USP, bots..... gram No prices.
Pregnenolone acetate, bots gram. No prices.
Propenyl guaethol, dms lb.24.30 -27.00
b-Propriolactone, tech., dms., c.l., f.o.b. works lb. .47½- —
dms., t.c.l., same basis lb. .48½- —
tanks, same basis ..... lb. .45 - —
Propionic acid syn., pure, dms., c.l., dlvd. lb. .23¼- —
dms., t.c.l., dlvd. ..... lb. .24¾- —
tanks, dlvd. ..... lb. .20¾- —
n-Propyl acetate, dms., c.l., dlvd. lb. .14¾- —
dms., t.c.l., dlvd..... lb. .16¼- —
tanks, dlvd. ..... lb. .12¼- —
n-Propyl alcohol, dms., c.l., dlvd lb. .14 - .15
dms., t.c.l., dlvd ..... lb. .15½- .16½
tanks, dlvd. ..... lb. .11½- .12½
n-Propyl gallate, dms., 100 to 2,000-lb lots, works lb. 3.90 - 4.40
n-Propyl-p-hydroxbenzoate, USP, dms lb. 2.30 - 2.40
Propyl thiouracil, bots., 50 kilo lots or more kilo.55.00 —
bots., smaller lots kilo.55.10 -55.30
n-Propylamine, dms., c.l., dlvd lb. 1.24 - —
dms., t.c.l., same basis lb. 1.255 - —
n-Propylene dichloride, consumers', dms., c.l., dlvd. E lb. .0845- —
dms., t.c.l., same basis .... lb. .0995- —
tanks same basis lb. .07 - —
Propylene dichloride prices in West 1c. higher, same basis
Propylene glycol, indust., dms., c.l., dlvd. E lb. .15 - —
dms., t.c.l., same basis .... lb. .16¾- —
tanks, same basis ..... lb. .12½- —
USP dms., c.l., dlvd. E..... lb. .17 - —
dms. t.c.l., same basis .... lb. .18¾- —
Propylene glycol methyl ether, dms., c.l., dlvd lb. .20 - —
dms., t.c.l., same basis lb. .21 - —
tanks, same basis..... lb. .18½- —
Propylene oxide dms., c.l., dlvd E. lb. .17 - —
dms., t.c.l., dlvd. E..... lb. .18½- —
tanks, dlvd. E ..... lb. .14½- —
Psyilium seed, black, bgs..... lb. .38 - .40
Blonde, bgs. ..... lb. .18 - .20
Husks, bgs. ..... lb. .42 - .45
Pumice, dom., grd., coarse to fine, 0, ½ 1, 1½ 2, 3, bgs., ton lots lb. .03¾- .04¼
bgs., smaller lots lb. .03¾- —
Imp., Italian, silk-screen, coarse, bgs, ton lots lb. .06½- —
fine, bgs., ton lots lb. .04 - —
sun dried, coarse, bgs. ton.60.00 —
fine, bgs. ..... ton.60.00 -70.00
Pumpkin seed, bgs..... lb. .25 - .26
Pyrethrins, syn. (see Allethrin).
Pyrethrum flowers, fine grd. 0.9% pyrethrins, bgs., ton, works lb. .50 - —
Powd., 1.3% pyrethrins, bgs., ton, works lb. .71 - —
Pyrethrum liquid, 20-1 basis (2 grams pyrethrins per 100cc odorless base), dms., works. gal. 9.60 - 9.80
Pyrethrum liquid, 100-1 basis (10 grams pyrethrine per 100cc odorless base), dms., works gal.45.90 -46.90
Pyrethrum oleoresin, dewaxed, 20%, dms., works lb.11.00 -11.35
purif, 20%, dms., works lb.11.00 -11.35
Pyridine, denat., dms., c.l., works and frt. equald. gal. 2.77 - —
dms., t.c.l., same basis ..... gal. 2.80 - —
Refd., 2°, non-ret. dms., c.l., same basis lb. .75½- —
dms., t.c.l., same basis..... lb. .76 - .76½
tanks, same basis..... lb. .71 - —
Pyridoxine hydrochloride, USP, 500-gram bots., dms., f.o.b. works kilo.95.00 -100.00

Pyrites, Canadian, 48-50% S, mines, long-ton. 4.50 - 5.00
Pyrocatechol (see Catechol).
Pyrogallic acid, NF (see Pyrogallol).
Pyrogallic acid, tech., bbls., 100-lbs., f.o.b., works lb 3.50 - —
Pyrogallol, NF, 100-lb. dms. lb 3.50 - —
Pyroxylin, USP, bots. lb 9.50 - —

Q

Quassia chips lb. .10 - —
Quicksilver (see Mercury metal)
Quince seed, bgs lb. 1.75 - —
Quinidine sulfate, USP, 1,000-oz. dm oz. 74½- —
Quinine, NF, 1,000-oz. dm. oz. .3750- —
Quinine bisulfate USP, 1,000-oz dm. oz. .28 - —
Quinine hydrochloride, 1,000-oz dm. oz. .3650- —
Quinine sulfate USP, 1,000-oz dm. oz. .3150- —
Quinoline dms., c.l., frt. equald. lb. .50¾ —
dms., l.c.l., same basis lb. .51¼- —
tanks, same basis lb. .50 - —

R

R salt paste, dms., frt alld., 100% basis lb .98 - —
Powd., frt. alld, 100% basis lb. 1.08 - —
Rapeseed oil, dms lb. .15½- .15½
tanks lb. .13¼- —
Rare earth oxalate, NF, 45-50%, bgs, works lb. 1.15 - —
Rauwolfia serpentina root, powd., bbls., dms lb. 1.00 - 1.20
Red carmine, No. 40 (see Carmine).
Red oil (see Oleic acid).

RED PIGMENTS

Red pigment quotations are listed individually For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner

Red precipitate (see Mercuric oxide red)
Red toner Lake C, alizanine, bbls., works lb. 1.30 - —
Reserpine, cryst. bots gram. 1.25 - —
Resorcinol, tech. grade, bgs., c.l., works, frt. equald lb. 77½- —
bgs., l.c.l., same basis lb. .78½- —
Resorcinol in dms., 1c. per lb. more.
USP. powd., dms., works lb. 2.95 - —
Resorcinol monoacetate, NF dms. lb. 2.50 - —
Rhatany root, bgs lb. .14 - .16
Rhodamine red toner, molybdated, PMA, kgs. works lb. 6.00 - —
Tungstated PTMA works, kgs lb. 6.60 - —
Rhodinol, 5-lb cans lb. 42.00 - 51.00
Synthetic lb. 14.00 - 16.00
Rhubarb root, India, whole, bgs lb. .25 - —
powd, bgs lb. .35 - —
tanks, same basis lb. .14½- —
Riboflavin USP fib dms., kilo or more dlvd kilo. 36.00 - —
Riboflavin, 5-phosphate-sodium fib. dms. kilo or more, dlvd. kilo. 104.50 - —
Rice bran oil, clarified, dms., l.c.l. lb. .14 - .14½
tanks, dlvd E lb. .12 Nom.
Ricinoleic acid (see Castor oil acids split).
Rochelle salt (see Potassium-sodium tartrate)
Roofing pitch (see Coaltar pitch roofing)
Rose oil, nat., Bulgarian, bots lb. 1,152.00- —
Turkish, bots lb. 560.00 - 750.00
Rosemary oil, Spanish NF, cns., dms lb. .97 - 1.40
Spanish tech, cns., dms lb. 50 - 1.20
Rosin gum and wood (see Naval Stores in Protective Coatings market).
Rotenone, fib, dms., works unit-lb. .10½- —
Resin, 25-45% fib dms., works, unit-lb. .10½- —
Rottenstone, bgs. 5-ton lots, exwhse lb. .03¾- —
bgs. ton lots, same basis lb. .04¼- —
Rubber solvent, petroleum, 115°F-245°F b.r., tankcars, New Jersey and New York gal. .19 - —
Group 3 gal. .13875- —
Houston, Texas gal. .155 - —
Rue oil, bots lb. 2.75 - 3.00
Rutin, NF fib dms., 10 kilo lots. kilo. 13.00 - —
fib dms., 5 kilo lots kilo. 13.50 - —
fib dms., 1 kilo kilo. 14.00 - —
Ryania, 100%, powd., bgs., c.l., works lb. .22 - —
bgs., l.c.l., same basis lb. .24 - —

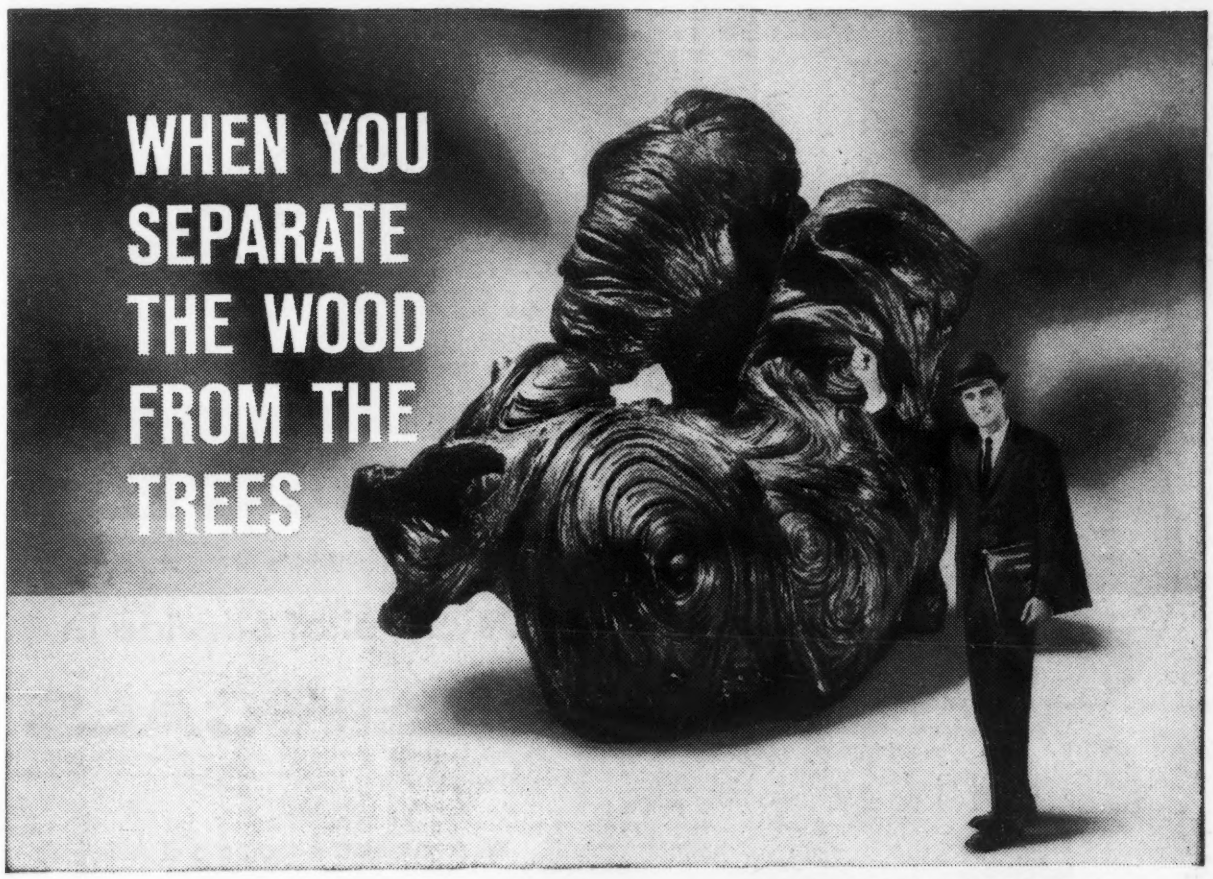
S

S acid, bbls., works lb. 3.25 - —
Sabadilla seed, activated, ground with lime, bbls lb. .42 - .44
Saccharin, calcium, fib dms., 1,000-lb lots, works lb. 2.50 - —
USP, gran., soluble, dms., 1,000-lb. lots lb. 1.40 - —
dms., smaller lots lb. 1.50 - —
USP, powd., soluble, insoluble, dms., 1,000-lb. lots lb. 1.45 - —
dms, smaller lots lb. 1.55 - —
Saccharin USP, powd., insoluble, dms., 1,000-lb. lots lb. 1.43 - —
dms, smaller lots lb. 1.53 - —
Safflower oil, dms., New York lb. .1725- .1750
tanks, All Coast lb. 15¼- 15½
Saffron, Mancha Superior, tins lb. 19.50 - —
Safrol dms lb .65 - —
Sage, Dalmatian, bgs lb. .40 - —
Greek, cns. lb. .15 - —
Italian, cns. lb. .18 - —
Sage oil, clary, bots lb. 12.00 - 15.00
Dalmatian, cns lb. 2.85 - 3.25
Spanish cns lb 1.25 - 1.75
Sal soda (see Soda sal).
Salicylaldehyde, dms., c.l., t.l., f.o.b., plant, frt. equald lb 1.23 - —
dms, l.c.l, same basis lb. 1.25 - —
Salicylamide, 100-lb dms lb. 1.05 - —
Salicylic acid, tech., fib, dms., c.l., t.l., dlvd lb. .40½- —
fib dms, l.c.l., dlvd lb. .44¾- —
Salicylic acid, USP, cryst, 200-lb. fib. dms., 1,000 lbs. or more lb. .51¾- —
200-lb. fib dms., less than 1,000 lbs lb. .54¾- —
100-lb fib dms, 1,000 lbs or more lb. .53¾- —
100-lb. fib dms., less than 1,000 lbs lb. .56¾- —
USP, powd., 100-lb fib dms., 1,000 lbs. or more lb. .58¾- —
100-lb fib dms., less than 1,000 lbs lb. .61¾- —
Salol, NF, gran., bbls., kgs lb 1.20 —
Powdered salol, 25c per lb higher.
Salt, rock, paper bgs., c.l. 100 lbs 1.09 - —
Salt, table vacuum, common, fine, paper bgs., c.l 100 lbs. 1.34 - —
Saltcake, dom. bulk, works, 100% Na2SO4 basis ton 28.00 - —
Saltpeter (see Potassium nitrate)
Sandalwood E. Indian, chips, bgs., lb. .55 - .66
powd, fib dms lb .75 - .76
Sandalwood oil, cns lb. 21.00 - —
Sarcosine, tech., tanks, f.o.b., works, frt. equald lb. 1.03 —
lb. No stocks.

Sassafras oil, artif., dms. lb. .48 - —
Nat., dom., dms lb 1.40 - —
Savory oil, cns lb. 4.75 - —
Schaeffer's salt, paste, dms., frt. alld 100% basis lb. .85 - —
Powd. bgs., frt. alld. 100% basis. lb. .95 - —
Scopolamine hydrobromide, USP, bots oz. 13.00 - —
Sebacic acid, CP, bgs., c.l., works lb. .69½- —
bgs., l.c.l., works lb. 71½- —
Purified, bgs., c.l., works lb. .65½- —
bgs., l.c.l., works lb. .67½- —
Seidlitz mixture, fib. dms., 5,000-lb. lots lb. .30½- —
fib, dms., smaller lots lb. .31 - .32
Selenium, powd., 99½%, dms., dlvd. lb. 7.00 - —
Senega root, bls lb. 2.95 - 3.00
Senna leaves, Alexandria, whole and half, bls. lb. .20 - .22
siftings lb. .16 - —
Tinnevelly, No. 1, bls lb. .22 - —
No. 2, bls lb. .18 - —
No. 3, bls lb. .14 - —
pods, bls. lb. .28 - —
powd., bbls., bxs lb. .17 - —
Serpentaria root, bls lb. 6.50 - —
Sesame oil, USP, dms., l.c.l lb. .37 - .38
Sesame seed Colombian, bgs lb. 15½- —
Lebanese, hulled, bgs lb. 19 - —
Nicaraguan, hulled, bgs lb. .25 - —
nat., bgs lb. 14 - —
Salvadorian, Nat. bgs lb. .16 - —
Shellac, bleached bonedry, bgs., 1,500-lb. lots lb. .47 - —
dms., l.c.l., works lb .22 - .20½
bbls., 1,500-lb. lots lb. .46 - —
kgs., 1,500-lb. lots lb. .47 - —
Bonedry shellacs prices for less than 1,500-lb. lots 1c. per lb. higher for all packages.

Shellac, bleached, refd., bgs., 1,500-lb. lots lb. .56 - —
bbls., 1,500-lb. lots lb. .57 - —
kgs., 1,500-lb. lots lb. .58 - —
Shellac, orange, lemon No. 1, bgs., 10-bg. lots lb. .37 - .39
lemon No. 2, bgs., 10-bg. lots, lb. .34 - .37
superfine, bgs., 10-bg. lots lb. .32 - .34
Shellac in 1 to 10-bg. lots 1c. per lb. more.
Shingle stain oil, tar distillate, dms., c.l., works gal. .37 - —
dms., l.c.l., works gal. .48 - —
tanks, works gal. .25 - —
Sienna pigment, burnt, paper bgs., c.l., works lb. .06½- .18½
paper bgs., l.c.l., works lb. .06¾- .17¾
Raw, paper bgs., c.l., works lb. .06¾- .16¾
paper bgs., l.c.l., works lb. .07 - .17
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton. 25.00 —
bgs., l.c.l. works, ex whse. ton. 45.00 - 55.00
Silica, hard-quartz, 99½%, 325 mesh, bgs., c.l., works ton. 20.00 - —
bgs., l.c.l., works ton. 25.00 - —
99½%, 140 mesh, bgs., c.l., works ton. 15.00 - —
bgs., l.c.l. works ton. 20.00 - —
Silicon tetrachloride, tech., dms., c.l., works lb. .20 - —
tanks, works lb. .15 - —
Silver bullion, ingots, cs Troy oz. .91⅛- —
Silver cyanide, bots., 1,000-oz. lots, oz. .94¾- —
bots., 500-oz. lots oz. .95¼- —
bots., 100-oz. lots oz. .96¼- —

Silver nitrate, CP, cryst., bots., 1,000 to 4,000 oz., f.o.b. works oz. .67¼- —
bots., 250-500 oz., same basis. oz. 67¾- —
USP granular silver nitrate 4c. per oz. higher.
Silver proteinate, mild, USP, 16-oz. bots oz. 1.46 —
Snakeroot oil, Canada, cns lb. 40.00 - 43.00
Soapbark, crushed, bls lb .30 - .35
Powd., bls. lb. .35 - .40
Whole, bls. lb .20 - .25
Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. 1.90 —
paper bgs., l.c.l., stock pts., 100 lbs. 3.00 - 4.77
bulk, c.l., works 100 lbs 1.60 —
Light, 58%, paper bgs., c.l., works 100 lbs 1.85 —
paper bgs., l.c.l., stock pts. 100 lbs. 3.95 - 4.72
bulk, c.l., works 100 lbs 1.55 —
Soda, caustic, flake, 76%, dms., c.l., works, frt equald 100 lbs 5.20 —
liq., 50% sellers' tanks works, dry basis 100 lbs 2.90 —
50%, rayon type, sellers' tanks, works, dry basis 100 lbs. 2.90 - 3.00
Soda, caustic, liq, 73%, sellers' tanks, works, dry basis. 100 lbs. 3.00 —
liq., 73%, rayon type, sellers' tanks, works, dry basis lb. 3.00 - 3.10
solid, 76%, dms., c.l., works, 100 lbs. 4.80 - —



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Maybe you think of Pine Oil today as a Detergent or Disinfectant. Because of its wide use in these fields, your conclusion is factual, *but has this overshadowed the fact that Pine Oil is a much more versatile chemical?*

Look at its general physical and chemical properties here and you'll discover – we hope to your surprise – why NEWPORT Pine Oils are also used as: *Mining Frothing Agents, Textile Wetting Agents, Pigment Grinding Aids, Gelatin Retarders* and *Flow Viscosity Improvers.*

Its uses are not limited to one field, but include soaps and cleaners, paints and varnishes, cutting oils, metal chrome polishes, essential oils, ore flotation, pharmaceuticals and leather processing.

Pine Oil, obtained from wood stumps, is completely oil soluble. On emulsification, it is also completely water miscible. It is outstanding **in reducing surface tension** and is an excellent solvent. It is non-toxic under normal conditions and, last but not least, don't forget its fragrant quality where odor masking is necessary!

GENERAL PHYSICAL AND CHEMICAL DATA OF TYPICAL NEWPORT PINE OIL

	Weight Per Gallon @ 15.5° C. (lbs.)	Specific Gravity @ 15.5° C./15.5° C.	Refractive Index @ 20° C.	Engler Distillation °C. 5%	50%	95%	Flash Point °F. (open cup)	Kauri Butanol Value*	Polymerization Residue
G.N.S. No. 5	7.76	0.932	1.482	200	212	220	167	Inf.	0.5%

*Basis: Toluene = 105

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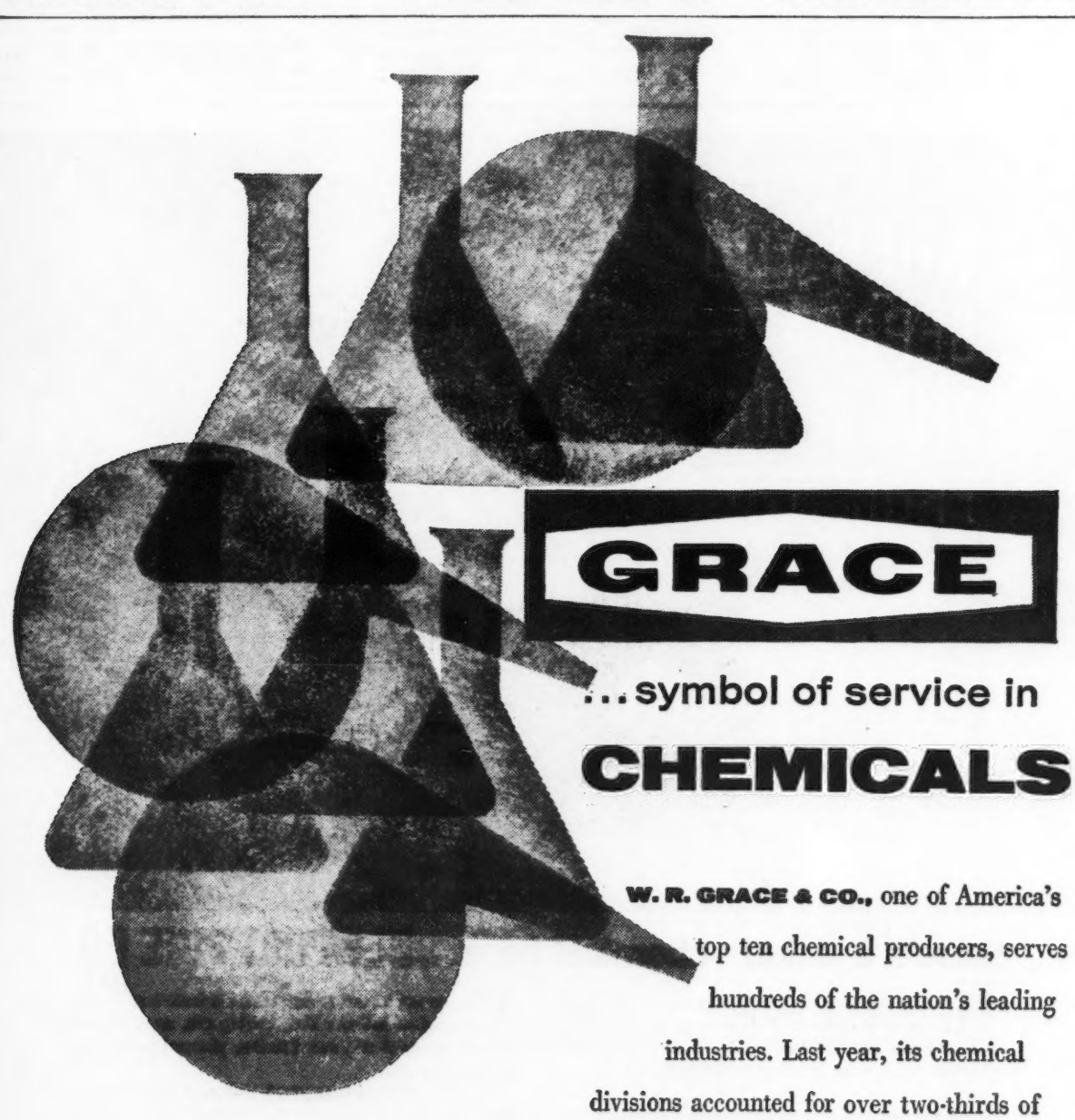
Soda—Sodium Phosphate

Soda sal. conc., bgs., c.l., works 100 lbs 2.50 - —
bgs. smaller lots, works 100 lbs 2.80 - —
Sodium acetate anhyd., bgs., c.l., divd E lb. .14½- —
NF 60% gran. dms. c.l., works lb. .15½- —
dms., l.c.l., works lb. .17½- —
Sodium alginate, NF, white powd., dom. 300 lbs or more lb. 1.02 - —
Sodium p-aminosalicylate, dms., 100-lb lots or more, frt. adjusted lb. 1.90 - —
Sodium antimoniate bgs., c.l., divd. E lb. .27½- —
bgs., l.c.l., divd. E lb. .29 - —
Sodium arsenate, 60% arsenic pentoxide, 200 lb. dm. less than ton lots, f.o.b. works lb. .24 - —
ton lots or more, same basis. lb. .23½- —
Sodium arsenite, 94% soluble pink powder, 75% arsenious oxide, dealers, 100-lb. dms., ton lots or more, f.o.b., works lb. .18½- —
1,600-1,900 dms., same basis....lb. .19 - —
100-500 dms., same basis.....lb. .20 - —

Sodium ascorbate, dms., 100-kilos., dms., f.o.b. works kilo. 6.80 - —
less than 100-kilos.....kilo. 7.05 - —
Sodium benzoate, tech., dms., c.l., t.l., frt. alld lb. .35 - —
dms., l.c.l., same basis lb. .39 - —
USP dms., c.l., t.l., frt. alld lb. .38 - —
dms., ton lots, same basis lb. .43 - —
dms., 1,000-lb. lots, same basis. lb. .45 - —
Sodium bicarbonate, USP, gran., bgs., c.l., works 100 lbs 2.95 - —
bgs., l.c.l., works 100 lbs 3.85 - —
USP, powd., bgs., c.l., works, 100 lbs 2.55 - —
bgs., l.c.l., works 100 lbs 3.45 - —
Sodium bichromate, gran., bgs., c.l., t.l., works lb. .13 - —
bgs., l.c.l. works lb. .13½- .14¾
Sodium bichromate in dms ¾c. per lb higher
Sodium bifluoride, bbls., c.l., works, frt. equald lb. .19½- —
bbls., l.c.l., same basis lb. .2025- —
Sodium bisulfate, bulk, c.l., works. 100 lbs 2.00 —
dms., c.l., frt. equald.....100 lbs. 3.00 3.60
dms., l.c.l., frt equald ....100 lbs. 3.50 4.10

Sodium bisulfite, anhyd., bgs., c.l., works 100 lbs. 5.00 - —
bgs., l.c.l., works .....100 lbs. 5.45 - —
Soln., 35° bbls., c.l., works.100 lbs. 1.70 - —
bbls., l.c.l., works.....100 lbs. 2.20 - —
Sodium borate (see Borax).
Sodium borohydride, powd., dms., c.l., works lb.19.90 - —
dms., l.c.l., works .....lb.33.00 -40.00
Sodium borohydride, stabilized water soln., 12% NaBH, 100% basis, dms. works lb.15.00 - —
Pelletized sodium borohydride $1 per lb. higher in 1,000-lb lots.
Sodium bromide, USP, gran., dms., works lb. .40 - —
Sodium carbonate, cryst., monohydrated (see Soda, sal).
Sodium carbonate, monohydrated, bgs., c.l., works 100 lbs. 3.10 - —
bgs., l.c.l., works 100 lbs. 3.50 - —
Sodium carboxymethyl cellulose (see CMC).
Sodium chlorate, cryst., 350-lb. dms., c.l., works lb. .09 - —
dms., l.c.l., works lb. .09½- .10½
Sodium chlorate in 100-lb. dms., only, ¼c. per lb. higher.
Sodium chloride, tech. (see Salt).
Sodium chloride, USP, gran., bgs. lb. .05 - —
Sodium chlorite, tech., dms., c.l., works lb. .58 - —
dms., 20-dm. lots or more, works. lb. .66 - —
dms., smaller lots, works....lb. .70 - .73

Sodium chloroacetate, tech., dms., c.l., works lb. .27 - —
dms., l.c.l., works..... lb. .28 - —
Sodium chromate, anhyd., fib. dms., c.l., t.l., works lb. .14¾- —
fib. dms., l.c.l., works lb. .15¼- .16½
Sodium chromate tetrahydrate, bgs., c.l., t.l., works lb. .1015- —
bgs., l.c.l. lb. .1065- .1190
Sodium citrate anhyd., 200-lb. dm., f.o.b works E lb. .62 - —
NF VIII, gran, bgs., c.l., same basis lb. .26 - —
USP XIV, gran., bgs., c.l., same basis lb. .29 - —
Sodium citrate, USP, powd. prices ½c. higher.
Sodium cyanate, dms., 1,000-lb. lots, works lb. .85 —
dms., smaller lots, works lb. .90 1.10
Sodium cyanide, briquettes or gran., 97 percent min., dms., works, 20,000-lb lots lb. .176 —
dms., same basis, 5,000 to 19,999-lb lots lb. .188 —
dms., same basis, 1,000 to 4,900-lb lots lb. .198 —
Sodium cyclamate, 100-lb dm., f.o.b. works lb. 1.95 —
Sodium diacetate, anhyd., 39-41% acetic acid, dms., c.l., works lb. .18 —
250-lb dms. c.l., works lb. .19¾- —
Tech. 33-35% acetic acid, dms., l.c.l., works lb. .15 —
250-lb. dms., l.c.l., works lb. .15¾- —
Sodium dimethyl dithiocarbamate, 40% soln. dms. c.l., t.l. frt. alld., 100% basis lb 42 —
dms., l.c.l., t.l., same basis lb. .47 .52
tanks, same basis lb .38 —
Sodium ferrocyanide, bgs., 10-ton lots lb. .13½ —
bgs. smaller lots lb. .14¾ —
Sodium fluoride white, 97%, fib. dms., c.l., works, frt. equald lb. 1390- —
fib. dms., l.c.l., works, frt. equald lb. 1465- —
Sodium formate, bgs., c.l., works. 100 lbs. 7.05 - —
bgs., l.c.l., ex whse 100 lbs. 8.65 - —
Sodium gentisate, 100-lb. fib. dms.lb 5.50 —
Sodium gluconate, refd., 250-lb. dm., f.o.b works E lb. .64 - —
Tech., bgs., c.l. t.l., same basis lb. .34 —
Sodium hydride, 50% soln. in oil, dms., works lb. 1.25 2.50
25% soln. in oil, dms., 50 lbs. or less, f.o.b shipping point. lb. 2.20 —
dms., 50-99 lbs. same basis lb 1.77 —
dms., 100-999 lbs., same basis lb 1.20 —
dms., 1,000 lbs or more, same basis lb .95 —
Sodium hydrosulfide (see Sodium sulfhydrate).
Sodium hydrosulfite dms. c.l., frt. alld lb. 23½ —
dms. l.c.l. frt. alld. lb. 25½ —
Sodium hydroxide, NF, pellets, 100-lb dms., 1 to 100-dm lots. lb. 23½ .28
Sodium hydroxide, tech (see Soda, caustic).
Sodium hypophosphite, NF, dms. 1,000-lb. lots lb. .99 —
Sodium hyposulfite (see Sodium thiosulfate).
Sodium iodide, USP, 300-lb dms. f.o.b. works lb. 2.13 - —
Sodium lauryl sulfate, dms., c.l., divd lb. .20½- —
dms., l.t.l., divd. lb. .21½- —
tanks, divd. lb. .19½- —
Sodium lignin sulfonate, bgs., c.l., works 100 lbs. 4.25 6.50
l.c.l., bgs., works 100 lbs. 4.40 7.00
Sodium metabisulfite (see Sodium bisulfite).
Sodium metaborate octahydrate, gran., bgs., c.l., works ton.210.00 - —
bgs., ton lots, ex whse 100 lbs. 8.00 - —
bgs., smaller lots, ex whse. 100 lbs 9.25 -11.25
Tetrahydrate, bgs., c.l., works. ton.210.00 —
bgs., ton lots, ex whse 100 lbs.13.93 - —
bgs., smaller lots, ex whse. 100 lbs.15.18 -17.18
Sodium, metallic, bricks, c.l., works. lb. .21 —
Fused, 18,000-lb. lots or more, works lb. .19½- —
tanks, works lb. .17 - —
Sodium metalinate, bbls., frt. alld. lb. .62 - —
Sodium metaphosphate, bgs., c.l., f.o.b. shipping pt 100 lbs.11.10 - —
bgs., l.c.l., same basis 100 lbs.11.85 - —
dms., c.l., same basis 100 lbs.11.70 - —
dms., l.c.l., same basis 100 lbs.12.45 - —
Sodium metasilicate, anhyd., bgs., c.l., works 100 lbs. 5.70 - —
bgs., 6,000-19,900 lb. lots, works. 100 lbs. 6.05 - —
dms., c.l., works 100 lbs. 6.20 - —
dms., l.c.l., works 100 lbs 6.55 - —
Sodium metasilicate pentahydrate, bgs., c.l., works 100 lbs. 4.45 —
bgs., l.c.l., works 100 lbs. 4.80 6.75
dms., l.c.l., works .....100 lbs. 4.95 —
dms., l.c.l., works 100 lbs. 5.30 7.25
Sodium molybdate, anhyd., dms., works, frt. equald lb. .92 99
Cryst., dms., works frt alld lb .74 .76
Sodium monoglutamate (see Monosodium glutamate)
Sodium monohydrate (see Sodium carbonate monohydrate)
Sodium naphthionate, bbls. ..... lb. .72 - —
Sodium nitrate, dom., crude, bgs., c.l. works ton 48.00 - —
bulk, c.l., works ton 44.00 - —
Imp., crude, 100-lb. bgs., c.l., Atl., Gulf, Pac., whse ton 48.00 - —
bulk, c.l., same basis ton.44.00 - —
Sodium nitrite, USP, bbls., c.l., works, frt equald 100 lbs 9.00 - —
bbls., l.c.l., same basis 100 lbs.11.00 - —
Sodium orthosilicate, conc., dms., c.l., works 100 lbs 6.70 —
dms., l.c.l., works 100 lbs 7.05 7.65
Hydrated, flake, bbls., c.l., works 100 lbs 5.65 —
bbls., l.c.l., works 100 lbs 7.60 - 7.90
Sodium oxalate, 88%, bgs., works 100 lbs.12.35 - —
99% bgs., works 100 lbs.15.40 - —
Sodium para-aminobenzoate (see Sodium p-aminobenzoate)
Sodium para-aminosalicylate (see Sodium p-aminosalicylate)
Sodium pentachlorophenate, briquets, dms., c.l., works, frt equald lb. .26 —
dms., l.c.l., same basis lb. .27½- .34
Pellets, dms., c.l., same basis lb. .26 —
dms., c.l., same basis lb. .27½- .34
Powd., dms., c.l., same basis lb. .25 —
dms., l.c.l., same basis lb. .26¼- .33
Sodium pentaharbital, USP, dms., 100 lbs. or more lb. 6.00 - —
Sodium perborate NF, tech., bgs., c.l., works lb. .18½- —
bgs. l.c.l., works lb. .19 .21
Sodium peroxide, dms., c.l., t.l., divd E. of Miss lb. .21½- —
dms., l.c.l., same basis lb. .22 - .22½
Sodium phenobarbital, USP, 100-lb. dms lb. 3.75 —
Sodium phenosulfonate, USP, IX, gran., dms lb. .52 - .53
NF powd. dms lb. .55 .56
Sodium phosphate, dibasic, anhyd., bgs. c.l. frt equald 100 lbs. 8.10 - —
bgs., l.c.l., same basis..100 lbs. 8.50 - 9.55



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Sodium phosphate, dibasic, cryst., bgs., c.l., t.l., frt. equald. 100 lbs. 4.75 - —
bgs., l.c.l., frt. equald. 100 lbs. 5.15 - 5.90
Dibasic. duohydrate, bgs., c.l., frt. equald. 100 lbs. 7.75 - —
bgs., l.c.l., same basis. 100 lbs. 8.25 - —
Monobasic, anhyd bgs., c.l., frt. equald. 100 lbs. 9.15 - —
bgs., l.c.l., same basis. 100 lbs. 9.55 -10.15
Tribasic, anhyd., bgs., c.l., frt. equald. 100 lbs. 9.15 - —
bgs., l.c.l., frt. equald 100 lbs. 9.60 -10.20
Sodium phosphate in dms. 60c. to 80c. higher than bgs.
Sodium phosphate, USP, dried, powd., bgs., dms., works lb. .19 - .20½
Sodium picramate, tech., paste, dms., f.o.b. works, frt. equald lb. .90 - —
Sodium propionate, any quantity, dms. dlvd. E of Rockies, lb. 34½ - —
Prices W of Rockies 3c. per lb. more
Sodium prussiate yellow (see Sodium ferrocyanide)
Sodium pyrophosphate, acid, bgs., c.l., works frt equald 100 lbs. 11.25 - —
bgs., l.c.l., same basis. 100 lbs. 12.00 -12.50
Sodium pyrophosphate, ferric, dms., c.l. t.l., works lb. .36 - —
dms. l.c.l. works. lb. .37 - .39
Tetrabasic, anhyd., bgs., c.l., works frt equald 100 lbs. 7.55 - —
bgs., l.c.l., same basis. 100 lbs. 8.30 - —
Sodium salicylate USP dms., 1,000-lbs or more lb. .78½ - —
dms., less than 1,000 lbs. dms. lb. .81½ - —
Sodium sesquicarbonate, bgs., c.l., works 100 lbs. 2.35 —
Sodium sesquicarbonate, bgs., l.c.l., dlvd. zone 1 100 lbs. 4.10 4.35
dlvd. zone 2 100 lbs 4.35 4.60
dlvd. zone 3 100 lbs 4.75 4.90
dlvd zone 4 100 lbs 5.35 5.60
Sales zones are (1) Atl. states E. of Miss., R and N of south bound of Ky. and Va., Ala., La and Miss. south of 31°; Tex E. of 100°; S of 31° Fla.; also Me., N. H. and Vt in which there are special county zones; Davenport, Ia., and St Louis; (2) Ark. E. of 98° Ga.; Iowa (except Davenport) Minn., Mo. (except St Louis) Neb E. of 98° N. C., S C., Tenn and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No of 31°; (3) Ark W of 98° Kan., Neb W. of 98° N D. Okla., S. D., Tex., W of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo and El Paso, Tex
Sodium sesquisilicate, anhyd., bgs., c.l. t.l. works 100 lbs. 5.70 - —
dms. c.l. t.l., works 100 lbs 6.20 - —
Sodium sesquisilicate hydrated, bgs., c.l. works 100 lbs 5.00 - —
bgs. 6,000-19,900 lb. lots, works 100 lbs. 5.35 - —
dms., c.l., works 100 lbs. 5.50 - —
dms. 6,000-19,900 lb lots, works. 100 lbs. 5.85 - —
Sodium silicate, liq., 40° Be., 1:3.2, turbid dms. c.l., works. 100 lbs. 1.65 - —
dms. c.l. works 100 lbs 1.90 2.40
tanks, works 100 lbs. 1.20 —
47° Be 1:29.9 turbid, dms., c.l., works 100 lbs. 2.25 - —
dms., l.c.l., works 100 lbs. 2.60 - 3.45
tanks, works 100 lbs 1.90 —
52° Be 1:2.4 turbid, dms., c.l., works 100 lbs. 2.65 - —
dms., l.c.l., works 100 lbs 3.00 - 3.50
tanks, works 100 lbs. 2.30 - —
Solid, 1:3.2. bgs. works ton. 67.50 - —
Sodium silicofluoride, bgs., c.l., works lb. .065 - —
bgs., l.c.l., works lb. .725- —
Sodium silicofluoride in dms., 0.4c. per lb. higher
Sodium stannate, dms., works, frt. alld., E. lb. .638 - .697
Sodium sulfa drugs (see Sulfa name).
Sodium sulfanilate bbls. works lb. .22 - —
Sodium sulfate NF VII, dried, powd., dms lb. .22½ - —
Tech., anhyd. bgs., c.l. dlvd E. ton. 56.00 - —
Tech., detergent, rayon grade. bgs., c.l., works ton. 38.00 - —
bulk, c.l., works ton. 34.00 - —
USP. cryst., fib dms lb. .17½ - .18
Sodium sulfhydrate, flake, 70-72%, dms. c.l. works, frt. equald lb. .07¼ - —
dms., l.c.l. same basis lb. .08¼ - —
Liq. 40-44%. tanks, works, 100% basis ton. 130.00 - —
Sodium sulfide, flake, dms., c.l., works, E., frt. equald lb. .06 - —
dms., l.c.l., same basis lb. .07 - —
Fused, bbls., c.l., works, E., frt. equald lb. .05½ - —
bbls., l.c.l., same basis lb. .06½ - —
Sodium sulfite anhyd., powd., bgs., c.l., works 100 lbs. 7.55 - —
bgs., l.c.l., same basis 100 lbs. 7.95 - —
Anhyd., tech., bgs., c.l., works. 100 lbs. 3.50 - —
bgs., t.l., same basis 100 lbs. 4.00 —
Sodium sulfocyanide, CP (see Sodium thiocyanate).
Sodium tetraborate (see Borax).
Sodium tetrasulfide, liq., 40%, dms., c.l., works frt. equald lb. .04½ - —
dms., l.c.l. same basis lb. .05½ - —
Sodium thiocyanate, CP, dms lb. .55 .65
Tech., anhyd., dms., 1 ton lots or more, works lb. .367 - —
dms., less than ton lots, works lb. .387 - —
Sodium thiosulfate NF cryst. bbls. lb. .13½ - —
Tech., anhyd. 100-lb. bgs., c.l., t.l., frt. equald 100 lbs. 7.75 - —
100-lb. bgs. l.c.l., t.l.l., frt. equald 100 lbs. 8.15 - —
Sodium thiosulfate tech., annyd., photo grade, 64-lb bgs., c.l., t.l., frt. equald lb. .0775- —
64-lb bgs. l.c.l. t.l.l., frt. equald lb. .0815- —
Tech., pentahydrate, photo grade, 100-lb bgs., c.l., t.l., frt. equald 100 lbs. 4.95 - —
Sodium thiosulfate tech., pentahydrate, photo grade, 100-lb. bgs., l.c.l., t.l.l., frt. equald 100 lbs. 5.20 - —
Sodium titanate, ctns., c.l., works. lb. .14¼ - —
ctns., 5-ton lots, works lb. .14½ - —
ctns., 1-ton lots or less, works lb. .14¾ - —
Sodium trichloroacetate, 90%, 100-lb. dms., c.l., frt. alld. E. lb. .35 - —
50-lb. dms., c.l., frt. alld. E lb. .35½ - —
10-lb. cns., c.l., frt. alld E lb. .42 —
Prices on Sodium trichloroacetate W. of the Rockies are 1¾c. per pound higher.
Sodium tripolyphosphate, bgs., c.l., works, frt. equald. 100 lbs. 7.90 - —
bgs., l.c.l., same basis 100 lbs. 8.65 - —
Sodium trisilicate, powd., 1:3.2, bgs., c.l., works 100 lbs. 8.95 - —
bgs., l.c.l., works 100 lbs 9.70 -13.13
dms., c.l., works 100 lbs. 9.45 —
dms., l.c.l., works 100 lbs. 10.20 -10.60
Sodium tungstate, tech., kgs., dlvd. E lb. 1.22 - —
Sodium-ammonium phosphate, purif., cryst., dms., works lb. .52 - —
Sodium-carboxymethyl cellulose (see CMC).
Sodium-cinchophen (see Cinchophen-sodium).
Sodium formaldehyde sulfoxylate, dms., t.l., dlvd. lb. .22½ - —
dms., l.t.l., same basis lb. .23 - —
Sodium-zirconyl sulfate, fib dms., 1,000-lb. lots or more works lb. .28 - —
fib. dms., smaller lots, same basis lb. .30 - —
Solvent naphtha, coaltar, high-flash, tanks, frt equald gal. .30 - .35½
Solvent naphtha, petroleum, straight aromatic, 310°-360° F b.r., 14° 16° C. m.a.p., tankcars, New Jersey and New York gal. .29 - —
Houston, Texas gal. .29 - —
355°-420° F. b.r., 17°-18° C. m.a.p., tankcars, New Jersey and New York, gal. .30 - —
Houston, Texas gal. .30 - —
Solvent naphtha, petroleum, partial aromatic, 211°-265° F b.r., 31° C. m.a.p., tankcars, New Jersey and New York gal. .235 - —
286°-340° F. b.r., 22° C. m.a.p., tankcars, New Jersey and New York gal. .275 - —
Solvent naphtha, 319°-380° F. b.r., 27° C. m.a.p., tankcars, New Jersey and New York gal. .27 - —
322°-395° F b.r., 28° C m.a.p., tankcars, New Jersey and New York gal. .28 - —
Sorbitan monostearate fib dms., 20,000-lb. lots, works lb. .33½ - —
fib. dms., 10,000 to 20,000-lb lots, works lb. .35½ - —
fib. dms., smaller lots, works lb. .38½ - .40½
Sorbitan tristearate, fib, dms., 20,000-lb. lots, works lb. .34 - —
fib. dms., 10,000 to 20,000-lb. lots, works lb. .36 - —
fib. dms., smaller lots, works lb. .39 - .41
Sorbitol, NF, reg., 70% aqueous, dms., c.l., works lb. .18 - —
dms., l.c.l., works lb. .19 - —
tanks, works lb. .16¼ - —
cryst., resin grade, pellets, dms., c.l., works lb. .23 - —
dms., 1 to 5-ton lots, works. lb .25 .26
powd., dms., c.l., works lb. .38½ - —
dms., 10,000 to 20,000 lb. lots, works lb. .40½ - —
Sorbitol, soln., comyl., aqueous, dms., c.l., works lb. .26 - —
dms., l.c.l., works lb. .27 - —
Soya protein, chemically isolated, old process, bgs., c.l., works. lb. .23 - —
bgs., l.c.l., works lb. .23¼ - .23½
Chemically isolated, new process, bgs., c.l., works lb. .20 —
bgs., l.c.l., works lb. .20¼ - .29½
Soybean meal, 44% bulk, unrestricted, Decatur. ton. 55.50 - —
Soybean oil, crude, tanks, Decatur lb. .10¼ - .10¾
Foots, soapstock, acid 95%, tanks, lb. .05 - —
Refd., alkali, dms. lb. .1455- .1480
tanks lb. .1255- —
Clarified, dms. lb. .1405- .1430
tanks lb. .1205- —
Salad, dms. lb. .1445- .1470
tanks lb. .1245- —
Soybean oil acids, dbl. dist., dms., lb. .16 - .18½
tanks lb. .13½ - —
S. D., dms. lb. .14¾ - .17¼
tanks lb. .12¼ - —
Sparteine sulfate, cns., 100 oz. or more oz. .80 —
Spearmint leaves, dom., bls lb 75 —
Spearmint oil, NF, dms lb. 7.80 - 8.00
Sperm oil, bleached winter, 45°, dms lb. .1675- .1775
tanks lb. .1475 —
Nat., winter 45°, dms lb. .1575- .1675
tanks lb. .1375 -
Spermaceti wax, blocks, cs. lb. .32 .33
Cakes, cs. lb. .33 .34
Spruce oil, cns., dms. lb 2.10 3.55
Squill, white, bls. lb 16 18
Powd., bbls., bxs. lb 17 20
St. John's bread, edible, bls. lb 17 —
Stannic chloride, anhyd dms. works lb. .808 - .830
Stannic oxide, dms., dlvd lb. 1.07½ - 1.08½
Stannous chloride, annyd dms. works lb. 1.007 - 1.256
Hydrous, cryst., dms., works lb. .86½ - .87½
Stannous sulfate, dms., works lb. 1.056 - 1.076
Star root (see Helonias root)
Stargrass root (see Aletris root.)
Stavesacre seed, bgs lb .60 61
Stearic acid, dbl., pressed, bgs lb. .15¼ - .17¾
Single-pressed, bgs. lb. .14¼ - .17¼
Triple-pressed, bgs. lb. .17 - .19½

TENNESSEE CORPORATION

We mine Copper, Sulfur, Iron and Zinc and are basic producers of their chemical derivatives. Our basic position in these elements is your assurance of exacting quality control from raw materials to finished product.

COPPER
SULFUR
IRON
ZINC
MANGANESE
FLUORINE

- Copper Sulfate
- Copper Sulfate, Monohydrated
- Copper Carbonate
- Ferric Iron Sulfate
- Manganese Sulfate
- Manganous Oxide
- Sulfuric Acid
- Sulfur Dioxide
- Para Toluene Sulfonic Acid, Anhydrous
- Chlorosulfonic Acid
- Zinc Sulfate, Monohydrated
- Zinc Oxide
- Sodium Silicofluoride
- Potassium Silicofluoride

TENNESSEE CORPORATION
612-629 Grant Building, Atlanta 3, Georgia

Stoddard solvent, petroleum, tanks, east coast, New Jersey, New York gal. .18 - —
tanks, Houston gal. 1475- —
tanks, group 3 gal. 12875- —
Stramonium leaves, bgs. lb. .16½- .18
Streptomycin sulfate, bulk, gram. .03 - .032
Strontium bromide, NF, cryst., gran., 150-lb. dm., frt. equald lb. 1.00 - —
Strontium carbonate, pure, dms. 5-ton lots or more, works lb .35 - —
dms. 1-ton lots, works lb .37 - —
Tech., dms., works lb .19 - —
Strontium chromate, fib dms, dlvd. lb .48 - —
Strontium iodide, jars, 25-lb lots lb 3.57 - —
Strontium nitrate, bgs, c.l., works 100 lbs. 11.00 - —
bgs., l.c.l., works 100 lbs. 12.00 - —
Strontium salicylate, NF, dms lb 1.88 - —
Strontium sulfate, air floated, 90%, 325 mesh, bgs., works ton .56.70 66.15
Strophanthin G (see Quabain, USP)
Strophanthin K, bots oz. 25.00 - 25.50
Strophanthus seed, Kombi, biologically tested, bgs lb 3.50 3.75
Styrax gum USP, cs lb 4.50 5.50
Styrene monomer, polymer grade, 99.6% dms, c.l. frt alld. lb .17 - —
dms., l.c.l., same basis lb .19 - —
tanks, same basis lb .14½- —
Styrene monomer, tech., 99.2%, dms., c.l. lb .1509- —
dms., l.c.l., same basis lb .1709- —
tanks lb .1259- —
Above prices are escalated for each calendar quarter on the basis of cost of benzene and petroleum refining labor.
Styrolyl acetate, bots lb. 1.03 1.10
Succinic acid, purif., cryst., dms., t.l., frt alld lb. .62 —
dms., t.t.l., same basis lb. .63 .75
Succinic anhydride, dms., c.l., t.l., dlvd lb. .51 - —
dms., l.c.l., same basis lb. .52 - —
Sucrose, refd, white, bgs, refy E. lb. .0955- —
Sucrose acetate, isobutyrate, 90%, dms, t.l., dlvd lb. .33½- —
dms., t.t.l., same basis lb .35 - —
tanks, same basis lb .31 - —
100%, t.l., dms., dlvd, lb. .35½- —
t.t.l. dms., same basis lb .37 - —
Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs. l.c.l., works lb. 1.00 —
Sugar (see Sucrose)
Sugar cane wax, dom., refd. slabs, 80-lb cins., works lb .60 .65
80-lb cins., spot lb .65 .75
Sulfabenzamide, dms kilo 8.80 9.90
Sulfabenzamide-sodium, dms kilo 9.00 10.10
Sulfacetamide, USP fib dms kilo 6.61 6.83
Sulfacetamide-sodium, USP, fib. dms kilo 8.15 9.25
Sulfadiazine, USP, microcrystals, dms kilo 23.35 24.45
USP, powd, dms kilo 22.60 23.70
Sulfadiazine sodium, USP dms kilo 24.80 25.90
Sulfaguanidine, NF X dms kilo 5.50 6.60
Sulfamerazine-sodium, USP, powd., dms kilo. 24.80 25.90
Sulfamethazine, USP XV, microcrystals, dms kilo 19.65 20.75
USP XV, powd, dms kilo 18.75 19.85
Sulfamic acid, cryst, dms, c.l., t.l., works 100 lbs 16.00 —
dms, l.c.l., t.l., works 100 lbs. 17.50 18.50
Granular, dms., c.l., t.l., works 100 lbs. 14.75 —
dms, l.c.l., t.l., works 100 lbs. 16.25 17.25
Sulfanilamide, NF reg., 1,000 lb., frt equald lb 1.50 —
NF fib dm. frt equald lb 1.55 - —
Sulfanilamide, quinoxaline, veterinary, dms kilo. 16.28 - —
Sulfanilic acid, tech, dms, c.l., frt alld lb .21 —
dms., l.c.l., frt alld lb. .23 —
Sulfapyridine, USP XV, powd., bots., tins kilo 15.45 16.55
Sulfapyridine-sodium, monohydrate, dms kilo. 16.55 17.65
Sulfathiazole, NF X, microcrystals, dms kilo. 6.25 6.90
NF X, powd, dms kilo. 5.50 6.15
Sulfathiazole-sodium, NF X, dms., 1,000-lb lots or more lb. 2.35 —
Sulfur, comil., flour, bgs., mines, 100 lbs 2.35 - —
bbls., mines 100 lbs 3.30 - —
lump, bgs., mines 100 lbs 2.25 - —
bbls., mines 100 lbs 2.80 - —
Sulfur, crude, dom., bright, bulk, f.o.b cars, mines long-ton 23.50 - —
export, f.o.b vessels, Gulf ports long-ton 25.00 - —
US and Canada, f.o.b vessels Gulf ports long-ton 25.00 —
Domestic dark sulfur prices are $1 per long-ton lower
Sulfur, crude, imp., Mexican, bulk, filtered, f.o.b., vessel, Coatzacoalcos long-ton 24.00 —
Mexican dark sulfur price is $1 per long-ton lower
Sulfur, refd., flowers, NF, bgs., mines 100 lbs 5.65 - —
bbls., mines 100 lbs 7.00 - —
flour, light, bgs., mines 100 lbs 5.25 - —
bbls., mines 100 lbs 6.25 - —
lump, bgs., mines 100 lbs 4.95 - —
rolls, bgs., mines 100 lbs 5.50 - —
bbls., mines 100 lbs 6.25 - —
salt block, bgs., mines 100 lbs 4.65 - —
virgin block, bbls., mines 100 lbs 4.70 - —
Sulfur, rubbermakers, comi., reg., bgs., mines 100 lbs 2.45 - —
bbls., mines 100 lbs 3.70 - —
98-100%, passing through 325 mesh, bgs., mines 100 lbs 2.55 - —
bbls., mines 100 lbs 3.80 - —
Sulfur, rubbermakers, refd., bgs., mines 100 lbs. 4.90 - —
bbls., mines 100 lbs 6.05 - —
treated, 2.5% mineral oil, bgs., mines 100 lbs. 2.75 - —
bbls., mines 100 lbs 4.00 - —
Sulfur dichloride, ret, dms., c.l., works, frt. equald lb. .05¼- —
ret, dms., l.c.l., same basis lb. .06¼- —
tanks, same basis lb. .04½- —
Sulfur dioxide, liq, comil., cyls., works, frt. equald lb. .10 - .12
multi-unit cars, works lb. .0535- —
tanks, works lb. .045 - —
Sulfur dioxide, refrigeration, cyls., dlvd lb. .33 - —
Sulfur monochloride, 55-gal. non-ret, dms., c.l., frt. equald lb. .05¼- —
dms., l.c.l., same basis lb. .06¼- —
tanks, same basis lb. .04½- —
Sulfuric acid, 60° Be, cbys., c.l., works 100 lbs 2.00 - —
cbys., l.c.l., works 100 lbs 2.30 - —
tanks, works ton 18.60 - —
Sulfuric acid, 66° Be, cbys., c.l., works 100 lbs 2.25 - —
cbys., l.c.l., works 100 lbs 2.55 3.35
tanks, works ton 22.35 - —
98%, tanks, works ton 23.50 - —
99%, tanks, works ton 23.70 - —
Sulfuric acid, 100%, tanks, works, ton 23.95 - —
CP, NF, consumers' cbys., c.l., frt. equald lb. .12¾- —
Sulfuric acid, CP, NF, consumers', cbys., l.c.l., same basis, lb. .14¼- .14¾
5-pt. bots., extra, cs., c.l., works, frt. alld lb. .16¼- —
5-pt. bots., extra, cs., l.c.l., same basis lb. .17¾- .18¾
Sulfuric acid, fuming (oleum), 20%, tanks, works ton 25.00 - —
40%, tanks, works ton 29.00 - —
65%, tanks works ton 39.50 - —
Superphosphate, run-of-pile under 22% a.p.a., pulv., bulk, c.l., Baltimore unit-ton .90 - .93
bulk, c.l., Carteret, N. J. unit-ton .90 - .93
Superphosphate, triple, 48% or more a.p.a., pulv., bulk, c.l., East Tampa, Fla. unit-ton 1.00 - —
bulk, f.o.b. vessel at Fla unit-ton 1.05 - —
Sweet birch oil, USP, northern, cns lb 4.00 9.50
USP, southern, cns lb 2.00 3.05

T

2,4,5-T, dms., c.l., works, frt. equald, lb 1.18 - —
dms., l.c.l., same basis lb 1.25 - —
2,4,5-T, isopropyl ester, dms., c.l., works, frt. equald lb. 1.24 - —
dms., l.c.l., works lb 1.29 - —
Talc, dom., fibrous, grd., bgs., c.l., works, New York ton 28.00 —
bgs. l.c.l., works ton 31.00 - 36.00
fibrous, 99.5%, 325 mesh, bgs., c.l., works, New York ton 31.00 —
bgs., l.c.l., works ton 34.00 - —
Talc, dom., fibrous, 99.95%, 400 mesh, micronized, bgs., c.l works ton 38.00 - —
625 mesh, micronized, bgs., c.l., works ton 80.00 —
Talc, dom., ord., Calif., grd., bgs., c.l., works ton 34.00 - 39.50
Vermont, off-color, grd., bgs. c.l., works ton 19.40 —
bgs., l.c.l., works ton 37.00 —
Imp., Canadian, grd. bgs., c.l., mines ton 20.00 - 35.00
tanks, works lb. .02⅞- .03⅛
Tall oil, crude, tanks, works lb. .03 - .03¼
Dist., depending on grade, dms., c.l., works lb. .07 - .09¼
tanks, works lb. .05¼- .08
Tall oil, refd., depending upon grade, dms., c.l., works lb. .07¾- .08¼
tanks, works lb. .05¾- .07½
Tall oil acids, dms, c.l., works lb. .07 - .10
dms., l.c.l., works lb. .07½- .10½
tanks, works lb. .05 - .07½
Tallow, edible, tanks, dlvd. lb. .09 Nom.
Inedible, fancy, bleachable, tanks, lb. .06⅛- .06¼
fancy, guaranteed, bulk, f.o.b. steamer lb. .06⅜- .06¾
dms., f.a.s. lb. .07⅜- .07¾
tanks, dlvd. lb. .06½- .07⅛
No. 1, tanks, dlvd. lb. .05¼- .05⅜
Prime, tanks, dlvd. lb. .05⅜- .06
Special, tanks, dlvd. lb. .05⅝- .05¾
Sulfonated 25% bbls., l.c.l lb. .08½ .08¾
50% bbls., l.c.l lb. .10½ .11
Tallow acids, dist., dms. lb .11¾- .14¼
tanks lb. .09¼- —
Hydrogenated, dms. lb. .14 - .16½
Tallow oil, acidless, dms, c.l. lb. .13½ —
dms., l.c.l lb. .14½ .15½
Tangerine oil, Florida, dms lb 4.75 —
Tankage, animal, feeding, 9-11% ammonia, New York bulk unit-ton 4.75 5.00
Tannic acid, NF, fluffy, bbls., 1,000-lb lots lb 2.05 —
bbls., smaller lots lb 2.06 2.07
NF, powd., bbls., 1,000-lb lots lb 1.95 —
bbls., smaller lots lb 1.96 1.99
Tech., dms lb 1.05 —
Tansy oil, dms lb 6.60 8.00
Tar acid oil, 15-18%, dms., c.l., frt equald gal. .53½- —
dms., l.c.l., same basis gal. .55½- —
tanks, same basis gal. .43½- —
Tar acid oil, 25-28%, dms., c.l., same basis gal. .60 - —
dms., l.c.l., same basis gal. 62 - —
tanks, same basis gal. .50 - —
50-53%, dms, c.l., same basis gal. .75 - —
dms., l.c.l., same basis gal. .77 - —
tanks, same basis gal. .65 - —
Tar, coal (see Coaltar)
Tartar emetic (see Antimony potassium tartrate).
Tartaric acid, NF, 100-lb bgs., c.l., frt. equald lb. .41 - —
bgs., 10,000 lbs. 1 shipt., same basis lb. .43 - —
bgs., smaller lots, same basis lb. .47 - —
Terpine hydrate, NF, cryst., powd., 100-lb fib dms lb. 70 —
Terpineol, extra, dms lb .50 .60
Prime, dms lb 40 .50
Terpinyl acetate, extra, cns., dms, lb .64 .75
Prime, dms lb .53 .56
Terpinyl propionate, dms lb. 1.65 1.70
Testosterone (US), bots gram No prices
Testosterone propionate, USP, bots, gram No prices.
Tetrachloroethane, dms, works lb 14½ —
Tetrasodium pyrophosphate (see Sodium pyrophosphate)
Tetrachloroethylene, tech. (see Perchloroethylene)
Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works lb. .20½- —
dms., l.c.l., works lb. .22 .23½
Tetraethyl orthosilicate, dms., c.l., dlvd. E lb. .60 —
dms, l.c.l, dlvd E lb. .61½- —
Tetraethyl pyrophosphate, 40%, cns., dms., frt. equald lb. .75 —
Tetraethylenepentamine, dms., c.l., dlvd. E lb. .53½- —
dms., l.c.l., dlvd E lb. .55 - —
tanks, dlvd E lb. .51 - —
Tetraethylthiuram disulfide, tech., dms., frt. alld lb. 1.04 - —
Tetrahydrofuran, dms., c.l., t.l., works lb. .36½- —
dms., l.c.l., or t.t.l., works lb. .37 - —
tanks, works lb. .35 - —
Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. lb. .31½- —
dms., l.c.l., Memphis, Tenn lb. .32½- —
dms., c.l., t.l., Newark, N.J lb .33½- —
dms., l.c.l., Newark, N.J lb. .34½- —
tanks, dlvd E of Denver lb. .31 —
tanks, dlvd W of Denver lb. .32 - —
Tetrahydrophthalic anhydride, dms., c.l., t.l., frt alld E lb. .39 - —
l.c.l., t.t.l., same basis lb. .41 - —
Tetrapotassium phosphate (see potassium phosphate)
Thallium metal, dlvd lb. 7.50 - 10.00
Thallium sulfate, 99%, bots., dlvd. lb 5.00 - 10.00
Theobromine, NF, fib, dms., 100-lbs., f.o.b., works lb. 4.10 - 4.15
Theobromine and sodium acetate, USP, fib, dms., 500-lbs. works lb. 6.45 - —
Theobromine, sodio-salicylate, NF, fib, dms., 500-lbs., works, lb. 3.80 - —
Theophyline, USP, anhyd., 100-lb. dms., frt alld lb. 3.65 - —
Thiamine hydrochloride, USP, fib dms., frt alld kilo. 36.00 - —
USP, ampule grade, fib., dms., frt alld kilo. 38.00 - —
Thiamine mononitrate, USP, fib dms., frt alld kilo. 36.00 - —
Thiocarbanilide, dms., ton lots lb. .74 - —
dms., less ton lots lb. .76 - —
Thiodiphenylamine (see Phenothiazine).
Thioflavin green toner, brilliant, molybdated, PMA, kgs., works lb 5.20 - —
Tungstated, PTMA, kgs., works lb 6.20 - —
Thioglycolic acid, refd., 55 gal. dms., ton lots, 100% basis lb 1.15 - —
Thiosalicylic acid, 80%, dms., 1,000-lb., lots, works lb 4.00 - —
Thiourea, tech, bgs, t.l. frt alld. lb .30 - —
bgs., ton lots, same basis lb .32 - —
bgs., less than ton lots, same basis lb .33 - —
Thorium nitrate, purif., fib dms., 100-lb lots or more, works lb. 3.50 - —
dl-Threonine, dms., 100 kilos, works kilo. 121.00 - —
Thyme leaves, French, triple sifted extra, bgs lb. .27 - —
Spanish, extra, bgs lb. .12 - —
triple sifted, bgs lb. .25 - —
Spanish, bgs. lb. .09 - —
Thyme oil, NF, red, cns., dms. lb. 2.00 - —
NF, white, cns lb. 2.20 - —
Tech., white, cns. lb 40 1.85
Thymol, fib dms., 25-lbs., f.o.b works lb. 2.45 - —
Thymol iodide, NF, dms, 100-lbs f.o.b. works lb. 7.30 - —
Timbo root (see Cube root)
Tin chloride (see Stannous chloride, anhyd.)
Tin crystals (see Stannous chloride, hydrous)
Tin metal (Straits) lb. 1.01 - —
Tin oxide (see Stannic oxide).
Tin sulfate (see Stannous sulfate).
Tin tetrachloride, anhyd (see Stannic chloride, anhyd.)
Titanium dioxide, anatase, ceramic, bgs., c.l., dlvd lb. .25½- —
bgs., l.c.l., dlvd. lb. .26½ —
reg., bgs., c.l., dlvd. lb .25½ —
bgs, l.c.l, dlvd. lb .26½ —
metallurgical, nat., bgs., c.l., f.o.b Jacksonville, Fla. ton 180.00 —
bgs., 5-ton lots, Niagara Falls, N.Y. ton 205.00 - —
bgs., ton lots, same basis ton 215.00 - —
Milled metallurgical titanium dioxide $7.50 per ton higher
Titanium dioxide, rutile, nonchalking, bgs., c.l., dlvd E lb. .27½ —
bgs, l.c.l, dlvd E lb. .28½ —
Titanium dioxide-calcium pigment, 30% Ti O2, reg., bgs., c.l., dlvd lb. .09⅜- —
bgs., l.c.l., works lb. .09⅞- —
50% Ti O2, high-tinting, dms, c.l., lb. .14⅜- —
dms, l.c.l lb. .14⅞- —
Titanium hydride, powd., dms., works lb. 8.10 9.00
Titanium tetrachloride, tech, dms., c.l., works lb .26 —
dms., l.c.l., works lb .27½- .29
tanks, works lb 20 —
Tobias acid, dms., c.l., t.l lb. .81 - —
dms., l.c.l. lb. .84 - —
d-a Tocopherols, NF, mixer, conc. pure basis, bots kilo. 67.00 - —
d-a-Tocopheryl acetate, NF, conc., pure basis, bots kilo. 122.00 - —
d-a-Tocopheryl acid succinate, cryst., bots kilo. 109.00 - —
dl-a-Tocopherol, bots kilo. 99.00 — —
dl-a-Tocopheryl acetate, bots kilo. 90.00 — —
25% dry powd., bots kilo. 22.50 - 24.00
33⅓% dry powd, bots. kilo. 30.00 - 31.50
o-Tolidine base, dry, kgs., 100% basis lb 1.55 —
Paste, kgs., 100% basis lb 1.50 —

TOLUOL

Toluol quotations, both coaltar and petroleum, may be found under Toluene.

o-Tolidine hydrochloride paste, kgs., 100% basis lb 1.50 —
Tolu balsam, cns lb 3.50 3.65
Toluene, coaltar, indust., or nitration, tanks, dlvd. E. of Rockies gal. .25½- —
Toluene, petroleum, indust, tanks, f.o.b., frt. equald gal. .25 - —
p-Toluenesulfonamide, powd., dms., t.l., works lb. .60 - —
dms, t.t.l. same basis lb .63 - —
Toluenesulfonic acid, 55-gal. dms., t.l., frt alld lb .16 - —
1,000-lb or more, same basis lb .18 - —
less than 1,000-lb., same basis lb .23 - —
tanks, same basis lb. .14 - —
Toluenesulfonic acid in 10-gal. dms., 2c per lb more.
p-Toluenesulfonic acid monohydrate, dms., c.l., or t.l lb. .90 - —
dms., 125 lbs to t.l. lb. 1.00 - —
m-Toluidine, dms, c.l., works, frt. alld lb .83 - —
dms., l.c.l., same basis lb .84 - —
tanks same basis lb .82 - —
o-Toluidine, dms., c.l., works, frt. alld lb .30 - —
dms., l.c.l., same basis lb .31 - —
tanks, same basis lb. .28 - —
p-Toluidine, tech, flake, dms., frt. alld lb. .50 - —
Cast, dms., frt. alld lb. 45 - —
p-Toluidine-m-sulfonic acid, dms., works lb. .92 1.04
Toluidine red toner, deep shades, kgs., works lb. 1.70 - —
Light shades, kgs, works lb. 1.70 - —
2,4-Tolylenediamine, cryst., fib. dms., l.c.l., frt alld lb. 1.10 - —
Tonka beans, Angostura, cks. lb. 1.50 - —
Brazilian, Surinam, cs lb. 1.30 - —
Totaquine, 100-oz lots, cns. oz. .42 - —
Toxaphene, dms., c.l., t.l., works, lb. .22 - —
dms., l.c.l., t.t.l., works lb .28 - —
Tragacanth gum, No. 1, ribbons, cs lb 4.10 4.20
No. 2, cs. lb. 3.75 3.80
No. 3, cs. lb. 3.40 3.65
USP powd., bbls. lb 1.05 1.15
Triacetin, dms., c.l., dlvd. E. of Rockies lb. .39 - —
dms., l.c.l., same basis lb. .40 - —
tanks, same basis lb. .37 - —
Triallylamine, dms., c.l., dlvd. lb. .985 - —
dms., l.c.l., dlvd. lb. .995 - —
tanks, dlvd. lb. .96 - —
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver, lb. .42¼- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .43½- —
tanks, frt. alld. E. of Denver lb. .40 - —
Tributyl phosphate, dms., c.l., works, lb. .52½- —
dms, l.c.l., same basis lb. .53½- —
tanks, same basis lb. .50 - —
Tributylamine, dms., c.l., works lb. .67½- —
dms., l.c.l., same basis lb. .69 - —
tanks, same basis lb. .65 - —
Tributyrin, dms., l.c.l. dlvd. lb. .69 - —
Trichloroacetic acid, tech., 300-lb. dms, c.l., f.o.b works lb. .52 - —
USP, 100-lb. dms., frt. equald lb. 1.25 - —
Trichlorobenzene, dms, c.l., frt. alld. E lb .15 —
dms., l.c.l., frt. alld. E. lb. .16 —
tanks, frt. alld E. lb. 13¼- —
Trichlorobenzene prices in the West 1¾c. higher.
1,1,1-Trichloroethane, dms., c.l., dlvd. lb .13¼ —
dms., l.c.l., dlvd. lb. .16 - —
tanks, dlvd lb. .12¼ —
1,1,2-Trichloroethane, dms., c.l., works lb. .13½ —
dms., l.c.l., dlvd E lb. .14¼- —
tanks, works lb. .11½- —
Trichloroethylene, dms, c.l., or t.l., dlvd. lb. .12½- —
dms., l.c.l., dlvd. lb. .14 - .14½
tanks, dlvd. lb. .11¼- —
Trichloroisocyanuric acid, dms., c.l., t.l. frt equald lb 65 - —
dms, l.c.l. same basis lb 75 - —
Trichlorophenoxyacetic acid (see 2,4,5-T).
Tricholine citrate, 65% soln., ret. chys. works, frt adjusted, lb. 1.40 1.45
Tricresyl phosphate, coaltar, dms., c.l., dlvd lb. .35 —
dms., l.c.l., dlvd. lb. .36 - —
tanks, dlvd lb. .32½- —
Tricresyl phosphate, petroleum, dms., c.l., dlvd lb. .35 - —
dms., l.c.l., dlvd. lb. .36 - —
tanks, dlvd lb. .32½- —
Tridecyl alcohol, mixed isomers, dms., c.l., dlvd E lb .26½- —
dms., l.c.l., dlvd. E lb .28 - —
tanks, dlvd E lb. .24 - —
Triethanolamine, dms, c.l., dlvd E, lb. .24½- —
dms., l.c.l., same basis lb. .26 - —
tanks, same basis lb. .22 - —
Triethanolamine lauryl sulfate, dms., c.l., t.l. frt. alld lb. .25½- —
dms, t.t.l. frt alld. lb. .26½- —
tanks, frt alld lb. .24½- —
Triethylamine, dms, c.l., dlvd E, lb. .50 —
dms., l.c.l., same basis lb. .51½- —
tanks, same basis lb. .47½- —
Triethyl citrate, refd., tech., non-ret, dms., c.l., frt alld E, of Denver lb. .46¼- —
non-ret, dms., l.c.l., frt alld. E. of Denver lb. .47¼- —
tanks frt alld E of Denver, lb. .43¾- —
Triethyl phosphate, dms., c.l., dlvd. lb. .40½- —
dms., l.c.l., dlvd. lb. .42 - —
tanks, dlvd lb. .38 - —
Triethylene glycol, dms., c.l., dlvd, E lb. .21 —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, same basis lb. .18½- —
Triethylenetetramine, dms., c.l., dlvd. E lb. .51½- —
dms., l.c.l., dlvd E lb. .53 - —
tanks, dlvd E lb. .49 - —
Triisobutylene, tanks, dlvd. lb. .08 - —
Tri-isopropanolamine, dms., c.l., dlvd. E lb. .23¼- —
dms., l.c.l., dlvd. E lb. .24¾- —
tanks, dlvd E lb. .20¾- —
Trimethylamine, anhyd., cyls., l.c.l., frt. equald, 100% basis lb. .30 .305
tanks, frt. equald, 100% basis, lb. .26 - —
25-40% soln, dms., c.l., frt. equald, 100% basis lb. .35 - —
dms., l.c.l., frt. equald, 100% basis lb. .35½- —
tanks, 100% basis, frt equald lb. .26 - —
Trimethylolpropane, dms., c.l., t.l., dlvd, E lb. .30½- —
dms., l.c.l., t.t.l., same basis lb. .31½- —
Trioxanes, pure, dms., c.l., t.l., works lb. .50 - —
dms., l.c.l., works lb. .51½- —
Tripentaerythritol, bgs., c.l., t.l., dlvd, E lb. .34 - —
bgs., l.c.l., t.t.l., dlvd. E lb. .35 - —
Triphenyl phosphate, bbls., c.l., frt. equald lb. .41½- —
bbls, l.c.l. frt equald lb. .43½- —
Triphenylguanidine, bbls., works lb. .90 —
Tripropylene, dms., c.l., dlvd. E gal. .44 - —
dms., l.c.l., same basis gal. .54 - —
tanks, same basis gal. .28 - —
Tripropylene glycol, dms., c.l., t.l., frt alld E lb. .20½- —
dms., l.c.l. t.t.l. frt. alld. E lb. .22 —
tankcars and compartmented tankcars, frt alld E lb. .17½- —
Tripropylene glycol, tankwagon and compartmented tankwagons, 1,000 gals min, frt. alld. E lb. .18 - —
Tripropylene glycol prices 1c. per lb. higher in west.
Trisodium phosphate (see Sodium phosphate tribasic)
dl-Tryptophane, dms., 1 kilo, works, kilo. 154.00 - —
Tung oil, dms., New York lb. .24 - .24½
tanks, imported lb. .22 - .22¼
tanks, domestic, mills lb. .22 - —
Tungsten metal, powd., 2.0-2.5 microns, dms., works lb. 4.25 - —
Tungstic acid, tech, dms., 1,000-lb lots, works lb 2.25 - —
dms., smaller lots, works lb 2.45 - —
Turkey red, bbls, works lb 62 —
Turpentine, gum (see Protective Coatings market, Naval Stores)
Turpentine oil, NF, cns., dms lb. .28 .50
Tuscan red, bbls, frt equald lb. .26 .32
Tyrothricin, USP, 1 to 5 kilos, gram .50 - —

U

Ultramarine blue, cobalt type, dry or pulp, 250-lb. bbls., dlvd, E. of Rockies lb. .30½- .35
Jobbing types, dry, bbls., same basis lb. .16 - .22¼
Regular types, dry, bbls, same basis lb. .16 - .37¼
Ultramarine blue prices 1c higher W. of Rockies.
Umber pigment, burnt, American, bgs., c.l., works lb. .07½- .07¾
bgs, l.c.l. works lb. .07¾- .08
Umber pigment, burnt, turkey-type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N. Y lb. .08¼- —
Raw, American, bgs., works lb. .07¾- .08¼
Turkey-type, bgs., works lb .08½- .08¾
Undecylenic acid, 55-gal. dms., f.o.b. works lb. 1.28 - —
Unicorn root, false (see Helonias root).
Unicorn root, true (see Aletris root).

Urea, 46% N, indust., bgs., c.l., t.l., dlvd, E. ..ton.98.00 - —
bgs., l.c.l., dlvd. E ex whse ton.100.00 - —
45% N, agricultural, bgs. c.l., (30 tons) dlvd. E. .ton.100.00 - —
Urea-ammonia liquor A, B, C & F grades, N basis, tanks, frt. equald ton.120.00 - —
37 grade, tanks, same basis ton.145.00 - —
Urethane, USP, dms., t.l., f.o.b., works lb .65 - —
dms., l.t.l., same basis..... lb .70 - —
Uva-ursi leaves, bls .....lb. .12 - —

V

Valerian root, Belgian bgs. ... lb .32 - —
Indian, bgs .. lb .25 - —
dl-Valine, dms., 1 kilo, works kilo.37.00 - —
Vanadium pentoxide, tech dms., works lb. 1.38 - —
Vandyke brown, bbls., works lb. 09½- .12
Vanilla beans, Bourbon, tins.....lb. 7.30 - 8.00
Mexican cuts, tins.....lb. 7.30 - 8.00
whole, tins .....lb. 8.25 - 9.00
Vanillin ex lignin, 100-lb fib. dms., 2,000-lb. lots or more..lb. 3.00 - —
less than 2,000 lbs.....lb. 3.20 - 3.30
Venetian red, jobbing, bgs., works. lb. .0475- —
Venetian red, 20%, bgs., works lb. .0525- —
25%, bgs., works .....lb. .0575- —
30%, bgs., works .....lb. .06 - —
35%, bgs., works .....lb. .0625- —
40%, bgs., works .....lb .0675- —
Vetiver oil, Bourbon, cns.....lb.17.00 -17.25
Haitian, cns. .....lb.12.00 -14.00
Victoria blue toner, molybdated, PMA 250-lb. bbls., dlvd. E. of Rockies lb. 4.50 - 4.95
Tungstated, PTMA, 250-lb bbls., dlvd. E. of Rockies lb 5.55 - —
Victoria blue toner, bbls., prices 1c. higher W. of Rockies
Vinyl acetate monomer, zone 1, 55-gal. dms., c.l., dlvd lb. .1810- —
55-gal. dms., l.c.l., dlvd ... lb. .1960- —
tanks, dlvd. ..... lb. .1560- —
tanktrucks, less than 4,000 gal., dlvd lb. .1610- —
Zone 2, 55-gal. dms., c.l., dlvd lb. .1910- —
55-gal. dms., l.c.l., dlvd ..... lb. .2210- —
tanks, dlvd. ..... lb. .1660- —
tanktrucks, less than 4,000 gals., dlvd lb. .1710- —
Zone 1 is all continental US except zone 2, zone 2 comprises Ariz., Calif., Idaho, Mont., Nev., Ore. Utah and Wash.
Vinyl n-butyl ether, tech., dms., l.c.l., works lb. .50 - —
Vinyl chloride monomer tanks, works, min. frt. equald, E. lb. .0891- —
Vinyl ether, USP, anethesia, bots., 50cc., hospitals bot. 1.12 - —
bots. 75cc. hospitals bot 1.56 - —
Vinyl ethyl ether, tech., dms., c.l., works lb. .30¼- —
dms., l.c.l., works ..... lb. .31 - —
tanks, works .....lb. .28¼- —
Vinyl propionate monomer, dms., c.l., dlvd lb. .49 - —
dms. l.c.l., same basis lb. .50 - —
tanks, same basis lb. .47 - —
Vinyl trichloride (see Trichloroethane).
2-Vinylpyridine, 10 dms to tanks, works lb. 1.20 - —
1 to 9 dms., works lb. 1.35 - —
tanks, works lb 1.15 - —
Vinyltoluene, dms., c.l., f.o.b., works. lb. .16½- —
dms., l.c.l., same basis lb. .18½- —
tanks, f.o.b dest, frt prepaid lb. .14 - —
Viosterol in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units. .02½- —
Virginia type red, bbls., works lb. 1.40 - —
Vitiamin A acetate, syn., cryst., heads 500,000 A units per gram gram .07¼- —
Vitamin A acetate dry, 500,000 units per gram, kilo lots kilo.65.00 - —
325,000 units per gram, same basis kilo.43.88 - —
250,000 units per gram, same basis kilo.33.75 - —
Dry vitamin A acetate in less than kilo lots, $1.25 to $2.50 per kilo higher
Vitamin A, liq in oil, 1,000,000 A units per gram 1,000,000 units. .09½- —
Vitamin A palmitate liq., 1,000,000-1,800,000 A units per gram 1,000,000 units. 09½- —
Vitamin B_1 (see Thiamine hydrochloride).
Vitamin B_2 (see Riboflavin and Yeast).
Vitamin B_{12}, cryst., USP (cyanocobalamin) 1-50 grams vials, tins gram.45.00 - —
0.1% vitamin B_{12}, USP, adsorbed on gelatin, 100 and 500-gram bots on 1-5 kilo dms gram.1.00 - —
Vitamin B_{12}, 0.1% vitamin B_{12}, USP, adsorbed on resin, 100 and 500-gram bots., 1-5 kilo dms., gram. 1.00 - —
Vitamin B_{12}, oral grade solids in containers of 1 and 10 gram of B^{12} activity gram.52.00 - —
0.1% trituration of cryst. B_{12} with dicalcium phosphate or mannitol, 1-10 kilo.52.00 - —
Vitamin B_{12}, 0.1% cobalamin concentrate, NF adsorbed on resin 500-gram bots. 1-5 kilo, dms. frt alld gram. .90 - —
0.1% cobalamin concentrate in gelatin 1-10 kilo dms., frt alld gram .90 - —
Vitamin C (see Ascorbic acid).
Vitamin D (see Codliver and Fishliver oils, Calciferol and Viosterol)
Vitamin D dry, 850,000 units per gram, kilo lots kilo.42.50 - —
850,000 units per gram less than kilo lots kilo.45.00 —
Vitamin E (see a-Tocopherol and Wheat germ oil).
Vitamin H (see Biotin)
Vitamin K active (see Menadione).
Vitamin K^1, 25-gram lots gram. 4.50 - —
Violet methyl toner (see Methyl violet toner).
VM&P naphtha (see Naphtha, VM&P, petroleum).

W

Wahoo root bark, bls. .... lb. 2.00 - 2.25
Warfarin, 0.5% dms., 50-lb. lots, dlvd lb. 1.95 - —
dms., 25-49-lb. lots, New York or Chicago lb 2.05 - —
dms., 5-24-lb lots, New York or Chicago lb 2.15 - —
Watchung-type reds., bbls lb. 1.95 - —

WAXES
Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.

Wheat germ oil, 5-gal. dms. ..gal.12.25 - —
White lead (see Lead, white).
White mineral oil (see Mineral oil, white).
White pine bark, rossed, bls. lb .31 - .32
White precipitate, USP, powd., dms., 100 lbs., f.o.b. works lb. 5.50 - —
Whiting (see Calcium carbonate).
Wild cherry bark, thin, nat., bls. lb. .30 - —
Wintergreen oil, USP nat northern, cns lb. 6.35 -17.50
USP, nat. southern cns lb 3.75 7.00
Wintergreen oil, syn. (see Methyl salicylate).
Witch hazel bark, bls .....lb. .30 - .35
Witch hazel leaves, bls lb. .75 - .80
Wollastonite, fine, paint grade, bgs., c.l., works ton.41.00 - —
bgs., l.c.l., ex whse ton.51.00 - —
Medium, paint grade, bgs., c.l., works ton.29.00 - —
bgs., l.c.l., ex whse. .....ton.39.00 - —
Wood alcohol (see Methanol).
Wood oil (see Tung oil).
Woolfat crude (see Degras).
Woolfat USP (see Lanolin).
Wormseed Levant bgs .....lb 2.50 - —
Wormseed oil (see Chenopodium oil NF).
Wormwood oil, cns.....lb. 4.75 - —

X

Xylene coaltar, indust., tanks, works:
Bethlehem, Pa. ..... gal. .29 - —
Birmingham dist. ..... gal. .29 - —
Chicago dist. ..... gal. .28½- —
Cleveland dist. ..... gal. .29 - —
Xylene, coaltar, indus., tanks, works:
Geneva, Utah ..... gal. .29 - —
Johnstown, Pa. ..... gal. .29 - —
Lackawanna, N.Y. .....gal. .29½- —
Lone Star, Tex. .....gal. .27 - —
Loraln, Ohio .....gal. .29 - —
Middletown, Ohio..... gal. .30 - —
Xylene, coaltar, indust., tanks, works:
Minnequa, Col. .....gal. .29 - —
Philadelphia dist. .....gal. .29 - —
Pittsburgh dist. .....gal. .29 - —
Sparrows Point, Md. ...gal. .29 - —
Terre Haute, Ind. .....gal .29 - —
Youngstown, Ohio.....gal. .29 - —
Xylene, petroleum, indust., tanks f.o.b. works:
Bayonne, N. J .....gal. .29 - —
Baytown, Tex. .....gal. .27 - —
Charleston, S. C. .....gal. .29 - —
Chicago, Ill .....gal. .28½- —
Detroit, Mich., dlvd....gal. .27½- .29
Houston, Tex. .....gal. .27 - —
Philadelphia, Pa. .....gal. .29 - —
Providence, R. I. .....gal. .30 - —
Sewell's Point, Va. ....gal. .28 - —
Wood River, Ill .....gal. .28½- —
m-Xylene, 95%, dms., c.l., f.o.b., Richmond, Calif lb. .25 - —
dms., l.c.l., f.o.b., Richmond, Calif lb. .26 - —
tanks, frt. alld. ..... lb. .23 - —
o-Xylene, dms., c.l., works.....lb. .08 - —
dms., l.c.l., works .....lb. .09 - —
tanks, works .....lb. .06 - .06½
p-Xylene, dms., c.l., works.....lb. .20 - —
dms., l.c.l., works .....lb. .21 - —
tanks, frt. alld. .. .. lb. .1645- —
Xylenol, cryst., 45°-47°C., m.p., dms., l.c.l., works, frt. equald lb. .23 - —
56°-58°C., m.p., dms., l.c.l., works, frt. equald lb. .33 - —
Xylenol, cryst., 60°-62°C., m.p., dms., l.c.l., same basis. lb. 40 - —
Xylenol fraction, b.r. 7°-9° C., dry above 227° C., dms., c.l., same basis gal 1.25 —
dms., l.c.l., same basis gal 1.30 —
tanks, same basis gal 1.05 —
b.r. 7°-9° C., dry at or below 227° C., dms. c.l., same basis. gal 1.35 —
Xylenol fraction, b.r 7°-9° C. dry at or below 227° C., dms., l.c.l. same basis gal 1.40 —
2,4-Xylidine, tech., dms. frt alld lb 1.15 —
2,5-Xylidine, tech., dms., frt alld lb 1.20 —
Xylidines, mixed, o-m-p, dms., c.l., or t.l., works lb .39 —
dms., l.c.l., same basis lb .40 —
tanks, same basis .....lb. .38 - —

XYLOL
Xylol quotations, both coaltar and petroleum, may be found under Xylene

Y

Yara yara oil, cns. .....lb. 2.15 3.05
Yeast, brewers, debittered, USP XV, Saccharomyces, dlvd lb. .27 —

FOR GREATER
PIGMENTATION EFFICIENCY

TITANOX*-A-CG
AND
TITANOX-RA-40

They're the newest additions to the most complete and best known line of white titanium dioxide pigments available today.

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Because of its exceptional ease of dispersion at high solids, TITANOX-A-CG produces smooth suspensions that are remarkably free from coarse agglomerates . . . that have low viscosity plus stability during aging. This pigment is well suited to high solids coatings applied at high speed by the trailing blade coater. It is also suitable for all other coating processes, including application at the size press or calender. TITANOX-A-CG embodies the full whitening, brightening and opacifying power of anatase TiO_2. In addition, it promotes the ready attainment of high gloss and uninterrupted smoothness of surface in fine finished papers.

TITANOX-RA-40 is characterized by ease of dispersion in plastic compositions plus the ability to whiten, brighten and opacify at the low pigment volumes usually associated with these products. This pigment is outstanding for the production of clean, bright whites and sharp tints. In low-loaded plastic compositions, it may well provide an economical replacement for other rutile titanium dioxide pigments. Where anatase TiO_2 is being used to produce the clean whiteness and desired tints often unattainable with rutile TiO_2's, TITANOX-RA-40 produces better color properties at economically lower loadings.

For complete information on the suitability of these new TITANOX pigments to your products, we cordially invite you to contact our Technical Service Department. Titanium Pigment Corporation, 111 Broadway, New York 6, N. Y.; offices and warehouses in principal cities. In Canada: Canadian Titanium Pigments, Ltd., Montreal.

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TITANIUM PIGMENT CORPORATION
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Yeast—Zirconium Oxychloride

Yeast, brewers, primary, USP XV, 150 meg. B^1 per gram, 100-lb. dms	lb.	.47	—
USP XV, 270 mcg., B_1 per gram, 100-lb dms	lb.	.52	—
Yeast, brewers, primary, USP, XV, 300 mcg., B_1 per gram, 100-lb. dms	lb.	.56	—
USP XV, 900 mcg., B_1 per gram 100-lb. dms.	lb.	.60	—
Torula. USP dlvd.	lb.	.18	—

YELLOW PIGMENTS

Yellow pigment quotations are listed individually For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow

Yerba santa leaves, bls.	lb.	.40	.45
Ylang-ylang oil, Bourbon, bots	lb.	7.00	22.00
Ylang Ylang oil, Bourbon, extra bots	lb.	24.00	33.00
Yohimbine hydrochloride, bots., tins.	oz.	3.75	4.25

Z

Zein, bgs., 36,000-lb. lots or more, bgs., 500-lb. lots or more, dlvd	lb.	.343	—
bgs., smaller lots, dlvd	lb.	.373	—
Zinc acetate, NF, VIII, dms.	lb.	.53	—
Tech., dms., l.c.l., works	lb.	.29¾	—
Zinc borate, bgs., 1,000 lbs or more, works	lb.	.25	—
bgs., less than 1,000 lbs., same basis	lb.	.27	—
Zinc chloride, NF, gran., dms	lb.	.42	—
NF, precip., powd., dms	lb.	.26	—
Tech., soln., 50%, dms., c.l., works 100 lbs.		5.80	—
dms., l.c.l., works 100 lbs.		6.40	—
tanks, works 100 lbs.		5.15	—
fused, dms., c.l., works 100 lbs.		10.70	—
dms., l.c.l., works 100lbs.		11.20	—
gran., fib. dms., c.l., works. 100 lbs.		11.45	—
fib. dms., l.c.l., works 100 lbs.		11.95	—
Zinc chromate bbls., dlvd.	lb.	.29	—
Basic bbls., dlvd.	lb.	.34	—
Zinc cyanide. dms., 1,000-lb. lots or more, works	lb.	.55	—
dms., smaller lots, works	lb.	.57	—
Zinc dust coml. bbls., c.l., works.	lb.	.16	—
Pigment, bbls., c.l., works	lb.	.15½	—
bbls., l.c.l., works	lb.	.17¼	—
Zinc fluoride, bbls., works	lb.	.49	.50
Zinc hydrosulfite, dms., c.l., frt. alld	lb.	.21½	—
dms., l.c.l., frt. alld.	lb.	.23½	—
Zinc metal, prime western, slabs, E. St. Louis	lb.	.12	Nom.
Prime western slabs, New York.	lb.	.12½	Nom.
Zinc naphthenate liq. 8% Zn., dms., frt. alld	lb.	.27	—
10% Zn., dms., frt. alld.	lb.	.33	—
Zinc nitrate, tech., flake, 100-lb. fib. dms., l.c.l.	lb.	.16½	—
300-lb. fib. dms, l.c.l.	lb.	.14½	—
300-lb. fib. dms., c.l.	lb.	.14	—
Zinc oxide, pigment, American process, lead-free bgs. c.l., frt. alld	lb	.14½	—
bgs., l.c.l., 10 tons or more, same basis	lb.	.15	—
bgs., l.c.l., smaller lots, same basis	lb.	.15½	—
Zinc oxide, leaded, 35% bgs., c.l., mills, frt. alld	lb.	.15⅜	—
bgs., l.c.l., 10 tons or more, same basis	lb.	.15⅞	—
50%, bgs., c.l., same basis	lb.	.15¾	—
pigment, American process, leaded, 50%, bgs., l.c.l., 10 tons or more, same basis.	lb.	.16¼	—
French process, green seal, bgs., c.l., mills. frt alld	lb.	.16¼	—
bgs., l.c.l., 10 tons or more, same basis	lb.	16¾	—
Zinc oxide, French process, green seal, bgs., l.c.l., smaller lots, same basis	lb.	.17¼	—
red seal, bgs., c.l. same basis.	lb.	.15¾	—
Zinc oxide, French process, green seal, bgs., l.c.l., 10 tons or more, same basis	lb.	.16¼	—
bgs., l.c.l., smaller lots, same basis	lb.	16¾	—
Zinc oxide, white seal, bgs., c.l., same basis	lb.	.16¾	—
bgs., l.c.l., 10 tons or more, same basis	lb.	.17¼	—
bgs., l.c.l., smaller lots, same basis	lb	.17¾	—
Zinc oxide, USP dms., c.l., frt. alld.	lb.	.18¼	—
dms., l.c.l., 10 tons or more, same basis	lb	.18¾	—
dms., l.c.l., smaller lots, same basis	lb.	.19¼	—
Zinc phenolsulfonate, NF, gran., dms	lb.	.45	.46
NF. powd., dms.	lb.	.48	.49
Zinc resinate. precip. 7.2-7.6% Zn., dms., frt. alld.	lb.	.45	—
Zinc silicofluoride dms. works	lb	12½	.14
Zinc stearate. USP, ctns., c.l.	lb.	.41	—
ctns., l.c.l	lb.	.41	—
	lb.	.42	.46
Zinc sulfate, powd., monohydrate, 36% Zn. bgs., c.l. dlvd.E. 100 lbs.		8.75	—
bgs. l.c.l. dlvd. E 100 lbs.		9.75	—
Zinc sulfate in bbls 40c. higher.			
Zinc sulfide. pure bgs., c.l., dlvd lb.		.2530	—
Zinc undecylenate. 75-lb. fib. dms., f.o.b. works	lb.	2.04	—
Zinc, yellow (see Zinc chromate)			
Zinc-ammonium chloride, bgs., c.l., works 100 lbs.		10.25	—
bbls., c.l., works 100 lbs.		10.85	—
bbls., l.c.l., works 100 lbs.		11.35	—
Zinc-formaldehyde sulfoxylate, basic, 300-lb dms., frt. alld	lb.	.26	—
Normal, 250-lb. dms., frt. alld	lb.	.55	—
Zircon (G) gran. bgs. c.l. works.	lb.	.03½	—
Zircon (G) gran., bgs., 5 tons to c.l., works	lb.	.03⅝	—
bgs., 1 ton to 9,999-lb lots, works	lb.	.04	—
bgs., smaller lots, works	lb.	.06½	—
Zircon (G) milled. bgs. c.l. works.	lb.	.04½	—
bgs., 5 tons to c.l., works	lb.	.04⅝	—
bgs., 1 ton to 9,999-lb. lots, works	lb.	.04⅝	—
bgs., 500-1,999-lb. lots, works	lb.	.07½	—
Zircon (G) in barrels 1c. higher.			
Zirconium acetate soln., 13% ZrO_2, dms. c.l. 30,000 lbs min., works	lb.	.23	—
Zirconium hydride powd. electronic grade, dms., works	lb.	14.00	15.00
Zirconium oxide, CP, white, grd., bbls or bgs. works	lb.	1.50	—
Electric-fused lump, bgs. 500 to 1,999-lb lots, works	lb.	.48½	—
bgs., smaller lots, works	lb.	.51	—
milled. bgs., c.l., works	lb.	.62	—
bgs., 5-ton lots, works	lb.	.62½	—
bgs., 1-ton to 9,999-lb. lots, works	lb.	.63½	—
bgs., 500 to 1,999-lb lots, works	lb.	.64	—
bgs. smaller lots. works	lb.	.66	—
Glass polishing grade, 94-97% ZrO_2, bgs., works	lb.	.55	.65
Opacifier grade. 85-90% ZrO_2 bgs.,	lb.	.27	.50
Stabilized oxide. 91% ZrO_2, milled, bgs	lb.	.62	.85
Zirconium oxychloride, cryst., ctns., 5-ton lots, works	lb.	.37½	—

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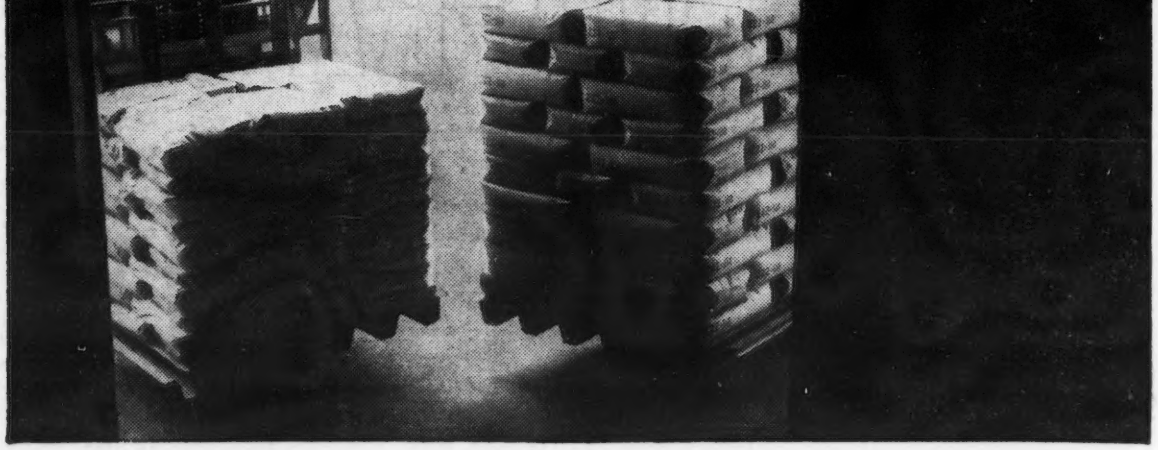

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Obituaries

Edward Block

Edward Block, senior vice-president and general manager of the chemical division of Olin Mathieson Chemical Corporation, died January 4 in Baltimore, Md. He was fifty-eight years old.

Mr. Block went to Olin Mathieson in 1955 when Blockson Chemical Company was acquired. He had been with Blockson as secretary-treasurer since 1933 after serving three years as manager of the Joliet, Ill., plant of American Cyanamid Company.

At Olin, Mr. Blockson started as a vice-president of the corporation and vice-president and general manager of the Blockson Division. Three months later he became executive vice-president in charge of both Blockson and the plant food division and in 1953 was named senior vice-president in charge of Olin's chemical division.

Mr. Blockson's thirty-seven year career in the chemical industry was begun in 1923, with Superior Chemical Company, where he remained seven years until joining Cyanamid.

He was a member of the board of directors of Olin Mathieson and Helene Industries, Inc.

Arthur W. Pinkham

Arthur W. Pinkham, president of Lydia E. Pinkham Medicine Company, Lynn, Mass., and grandson of the founder, died December 31 in Lynn. He was eighty-one years old.

Edgar W. Heller, jr., a purchasing agent for American Cyanamid Company at Bound Brook, N. J., died January 1 in Shrewsbury, N. J. He was fifty-six years old.

Dr. Frederick Fuller Russell, developer of the first successful typhoid vaccine, died December 29 in Louisville, Ky. He was ninety years old.

Kenneth Curtis Crouse, sr., sales executive with J. M. Huber Corporation, New York, died January 5 in that city. He was fifty-seven years old.

Ferdinand B. Savarese, director of laboratories for Advanced Solvents & Chemical, a division of Carlisle Chemical Works, New Brunswick, N. J., died January 3. He was forty-four years old.

Norman E. Shaw, general manager of industrial chemical sales for Collier Carbon & Chemical Corporation, Los Angeles, died December 26 in that city. He was thirty-eight years old.

Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

Founded October 18, 1871 by William O. Allison
Directed 1900-1942 by Harry J. Schnell
EDITOR AND PUBLISHER: William S. Auchincloss
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SCHNELL PUBLISHING COMPANY, INC., 30 Church Street, New York 7, N. Y.
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Volume 179 January 9, 1961 No. 2

A LOOK AT THE FIGURES

Chemicals Production: How It's Going

		October 1960	October 1959
Acetic Acid, Synthetic	lbs.	57,631,804	62,436,063
Acetone	lbs.	58,114,205	60,429,964
Ammonia, Anhydrous	tons	387,282	386,261
Benzene	gals.	37,375,717	17,609,609
Chlorine	tons	390,697	386,972
Formaldehyde (37% basis)	lbs.	149,370,314	159,393,030
Methanol, Synthetic	lbs.	167,557,384	154,307,826
Phthalic Anhydride	lbs.	29,923,512	23,274,023
Sodium Hydroxide (Caustic Soda 100% NaOH)	tons	410,010	419,950
Sulfuric Acid (100% H_2SO_4)	tons	1,489,433	1,445,246

Sources: Tariff Commission, Bureau of Census

What Is to Come

Private enterprise is faced with a most perplexing problem by way of the unpredictable potentialities of the executive, legislative and judicial responses to the report made to the President-elect on the need for thoroughgoing overall reform of the makeup, the policies and the practices of the regulatory agencies of the federal government. This report was prepared by a special adviser who, having been a member of three of those agencies, knows what he is talking about and should logically be expected to know what can be done to remedy the faultiness of policy and practice. His assignment to further study of the matter and formulation of remedial legislative and executive plans to deal with it opens the way for unlimited speculative expectations. What will come in the way of supervisory functioning is yet to be learned. It could be almost anything.

Business is presented with a highly potential opportunity—and a seriously purposed obligation—under the regulatory reform movement which has come a long and devious way since the launching of the congressional probe some three years ago, and the earlier recommendations of the Hoover commissions. Relations under regulations have always been in large part not what they should be. The reasons underlying that situation have been variously attributable by both parties to the relationship.

That is where business has an obligation to itself as well as to the public which it serves. It should accept that obligation in full, adopt an objective attitude in cooperation with those who will be active in the search for, the devising and developing of and the earnest, honest application of desirably corrective programs—including that announced December 29 by the Secretary of Health, Education & Welfare with reference to the agencies in his department—especially the Food & Drug Administration.

The national organizations of business should take full advantage of the opportunity to learn from the special report to Mr. Kennedy and the HEW program the highly necessary advice that they should give their members on what to expect—and how to receive it—as a consequence of whatever may develop in connection with any progress in the contemplated regulatory reforms.

Foreign Service Plans

After several months of poking and probing in Washington, it appears that at least some of what is not up to par in the nation's foreign service policies, practices—and personnel—is to get some of the official attention that it deserves and demands if this country is to measure up to what it should—and must—be as a world leader, power, or something befitting its capabilities. Of particular impressiveness upon those who concern themselves in some manner or other with the subject is the announcement by the President-elect that he is appointing an ambassador-at-large—a sort of roving minister of foreign affairs, who will "confer with world leaders at any time to provide a more personal contact between this country and others"—a most desirable attainment.

There has been some interesting looking into foreign service matters in recent weeks as one of the many things with which the incoming President will have to deal. One big topic of discussion has been to what extent in volume and value the service at any particular post calls for a career occupant or what Mr. Kennedy has referred to as "the best man we can get." The criterion of that qualification is not readily definable with informative clarity.

There is a movement under way to get around the generally accepted necessity that in various—if not all—important posts, the primary requirement of the representative is that he be financially able to live up to his job—a most costly undertaking in many instances. Proposals and projects aimed at making the compensation meet the needs are frequently launched but for the most part get nowhere, although some progress has been made toward the providing of a fund for the adequate training of a foreign-service corps. The paying for the acquiring of training in the use of a specific language has been given some congressional approval but in that area there is still very much to be done.

One of the big needs in today's foreign service, especially with reference to the new nations to which it must be extended, is for proper attention to the development of commercial, cultural and social contacts and activities, because they are at least as essential and desirable as are the usually primary political relations. That is why business should—yes, must—get in on the ground floor for practical participation in Mr. Kennedy's plan for an ambassador-at-large. Such participation will make the scope of that ambassadorship what it should be in nature and extent.

Washington Talks It Over

Chemical Men Are Facing a Strange New Relationship With Some Good Friends in Washington: From Now on the Handshakes Will Have to Be Cold.

By Ralph L. Cherry
Washington Editor

Industry relationships with the Food & Drug Administration are heading into a chilling period that will last for the next several months. Whether they evenutally wind up in the deep-freeze depends upon how much rubber FDA can write into the definition of "reasonable" and still keep the political crusaders and extremists off its back.

If this sounds a bit ominous to the chemical and drug industries—coming at a time when the chemical producers are just now becoming acquainted with this agency and the drug manufacturers are in hopes of seeing an end to their troubles with official Washington—it is all because FDA is under orders to come up with some kind of scheme for "reasonable" controls of contacts of industry with FDA personnel.

The agency has been pushed into a corner on this matter by the Kendall committee which spent six months investigating the integrity of FDA employees and came to the conclusion that there were inherent dangers in the present open-door policy. Secretary of Health, Education & Welfare Arthur Flemming instructed FDA to develop the control program before he leaves office January 20.

It is anybody's guess as to what kind of plan is being devised by the agency. Probabilities are that employes will be put under instructions to maintain detailed memorandums on all callers and their discussions, as well as telephone calls. The extreme would be to require all callers to report to some central desk—reminiscent of World War II days in Washington—but this is not expected.

There have been, in the history of FDA, periods of close cooperation with the regulated industries and periods of relative detachment. This has been determined largely by the amount of funds available for enforcement, interest of the public in the work of the agency and political philosophy of the administration in power—among other reasons.

The Kendall committee found there can be no doubt that in the fifteen years since World War II FDA has moved toward industry in many respects and has depended very heavily upon industry to police itself. But the committee found that self-regulation has its limitations because there is always that fringe which fails in the faithful execution of the law and creates unfair competition for others.

The committee does not favor cutting off all contacts with industry. An impossible situation would be created if FDA was denied access to industry technicians and the information available to industry. But it did feel that precautionary measures should be taken to guard FDA workers against coercion, pressures, interference or undue influence.

OPD'S BOOKSHELF

Atoms and Drugs

On a small but growing scale, radioisotopes are finding a place in the pharmaceutical industry. Current applications include tracer work, analysis, quality control, package control and sterilization. These and others still in the offing are treated in detail in RADIOISOTOPES AND NUCLEAR TECHNIQUES IN THE PHARMACEUTICAL AND ALLIED INDUSTRIES,* a report covering the recently completed survey of the Bionucleonics Department of Purdue University's School of Pharmacy.

The project and study were supported by the Office of Isotopes Development of the Atomic Energy Commission.

The book discusses radiation and isotope technics used in other industries that might well be adopted by the pharmaceutical industry. These the authors present in detail, pointing out their advantages in accuracy and time-saving over present operations.

*RADIOISOTOPES AND NUCLEAR TECHNIQUES IN THE PHARMACEUTICAL AND ALLIED INDUSTRIES. By John E. Christian and William F. Bousquet. 119 pages. Purdue University, Lafayette, Ind.

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Heavy Chemicals

To add to the chronic complexity of east coast sulfur pricing, there now appears to exist a split schedule. During the last fortnight a Mexican firm advanced prices $2 a ton, affecting east coast deliveries, a US firm cut allowances to meet the new price, but another domestic firm reported that its own pricing policy had not been changed. Though on the surface price schedules now appear to diverge, it's doubtful whether in actual practice one company is charging more than another for a material in notably generous supply, observers say.

For one thing, it's pointed out that the price advance applies immediately only to new business. Contracts would be affected only as they fall due, and contracts in the sulfur business are usually on a long-term basis.

That the market is enjoying a firmer tone owing to an upturn in export prices is as much as any one can say for sure at this point. Whether any domestic customers are paying more for their sulfur is doubtful, the market being as competitive as it is.

There was no question at least about the advance in sodium phosphate prices. The scheduled boost of 15 cents a hundredweight hit all books as the year turned.

Other prices were grimly stable as profit margins cried aloud for help, while customers, suffering from the same squeeze, shopped warily.

Zinc, however, declined. A major producer said that to meet competition the company was now offering a discount of $10 a ton—in effect, a price reduction of one-half cent a pound. This comes in the wake of two one-half cent reductions near year's end.

The American Paper and Pulp Association reported production for the week ended Dec. 31, at 53.8 percent of theoretical capacity, as compared with the revised figure of 74.7 percent for the previous week and 80.6 percent for the corresponding week of last year.

Price Trends

Advanced

Sodium phosphate, tech and food grades, 15c. per 100-lbs.

Reduced

Zinc, ½c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Jan. 8, 1960
106.82	106.81	106.84	103.56

For Current Prices see page 9

Acids

Boric—In no hurry to commit themselves, consumers were taking moderate amounts of material as the year turned, with a wary eye on retail sales.

The extent of the anticipated recession, observers say, hinges on retail sales during the spring season. A good performance, indicating reserves of buying power in the economy, would encourage manufacturers to turn the throttle back to normal, it is said.

Chromic — Government accounts are proving as sturdy as ever, but demand in Detroit has declined slightly from seasonal influences, and appliance accounts are still slow.

Hydrochloric—Acid sales were holding up well at the start of the year, but there was no urgency in demand. Prices continued stable, supplies quite adequate.

Sulfuric—Prices along the east coast remained as previously; and now that the advance in sulfur prices has taken on an equivocal look, the market must search elsewhere for a firming influence. And it won't find it in steel, observers say.

American Iron & Steel Institute reports production during the week ended December 31 at 1,103,000 net tons, a sharp decline from the previous week's 1,325,000 tons. Production for the year as a whole was tallied at 99,260,000 tons (preliminary), a respectable advance over last year's 93,446,132 tons.

Bases and Salts

Aluminum Sulfate—Paper and paperboard production will gain in 1961, but the increase is expected to lag behind the average historic growth of this industry. Such is the forecast made by Business & Defense Services Administration.

BDSA pegs '61 output at 35 million tons, as compared with 34.5 million in 1960 and 34 million in 1959.

Apparent consumption (production plus imports minus exports) in 1961 is expected to total 39.8 million tons, as against 39.4 million in 1960 and 38.8 million in 1959.

These forecasts point to a production increase of about 1.5 percent and a consumption gain of about 1 percent. The average long-range annual growth factors are 3.8 percent for production and 3.5 percent for consumption, the government agency points out.

Lime—Lime sold and used in the US in October totaled 1,004,509 short tons, up from September's 980,089 tons, the Bureau of Mines reports.

Noteworthy, the figure was well ahead of the 681,184-ton total reported for October 1959. The latest figure included 780,691 tons of quicklime and 223,818 tons of hydrated. By uses, it breaks down as follows:

- Agricultural, 10,558 tons.
- Construction, 84,820 tons.
- Chemical and other industrial outlets, 84,820 tons.
- Refractory (dead-burned dolomite), 125,220 tons.

Sodium chloride—US salt production in 1960 is estimated at 26,676,000 short tons, valued at $169,811,000, in a year-end report of the Bureau of Mines. Last year's output was 25,160,000 tons, valued at $155,839,000.

Imports of salt in bulk and bags, etc., were estimated at 967,000 tons, based on final figures for the first ten months. The figures exclude imports in brine form. Quoted prices were unchanged throughout the year, Mines notes.

Sulfur—To add to the chronic complexity of east coast pricing, there now appears to exist a split schedule. Reviewing the events of the past fortnight:

- A leading Mexican supplier increased prices $2 a ton, f.o.b. its shipping port in Mexico, thereby raising tabs to consumers along the east coast. The announcement applied to all new business immediately, but would affect contracts only as contracts fell due.
- A US firm, which like others had been granting $3.50 allowances to meet the former Mexican prices, cut these allowances to correspond to the new competitive situation.
- Another US producer, noting that the bulk of sulfur business is done on long term contract, questioned whether the Mexican announcement would tangibly affect prices. Accordingly, the company has reported no change in its own pricing policy.

Thus, on the surface at least, divergent price schedules exist; in practice, it's doubtful that one company is charging more than another for a material in notably generous supply.

US sulfur consumption reached a peak of nearly 6 million tons last year, up from 5,925,000 tons in 1959, according to a report from an American producer.

US frasch production for the year is tabbed at 4,920,000 long tons, as compared with 4,554,000 tons in 1959 and 4,643,000 tons in 1958. US exports of Frasch are estimated at 1,750,000 tons, as compared with 1,612,000 in 1959.

Actual sales of US Frasch were somewhat lower in 1960: 5,100,000 tons versus 5,182,000 in 1959, according to the report.

At the end of the year, US Frasch stocks, largest in the world, stood at 3.6 million long tons, down slightly from the previous year-end total of 3,810,000 tons, it is noted.

The following figures compiled by the Bureau of Mines, show production and shipments of sulfur during specified periods:

	October	September
Native production	389,930	372,514
Shipments	449,249	427,300
Sales*	484,586	435,926
Stocks†	3,560,691	3,655,347
Recovered production	63,653	58,736
Shipments	58,584	55,156
Sales*	58,949	58,485
Stocks†	108,595	103,891

* Calculated from production and change in stocks during the period.

† Producers' stocks at mines or plants in transit, and in warehouse at end of period.

The following figures, compiled by the Bureau of Mines, show imports of Cana-

Heavy Chemicals

dian and Mexican sulfur into the United States during specified periods in long tons.

	October	September
Ore	7,208	7,829
In any form	38,615	23,062
Total	45,823	30,891
Dollar Value		
Ore	$162,206	$154,013
In any form	798,167	484,861
Total	$960,373	$638,874

Nonferrous Metals

Copper—Will the current copper export rate produce a shortage of scrap?

The question will be raked over this Wednesday (January 12) at a meeting between copper industry men and government officials in Washington. The conference has been called by Business & Defense Services Administration in response to a request from industry.

Invitations were sent to twenty-four producers, representing a cross section of the copper and copper-base alloy industries.

Tin—Prices closed unchanged at 1.01 a pound for Straits metal.

Titanium—Business & Defense Administration estimates total US output of titanium mill products in 1960 at 9.8 million pounds, an increase of 52 percent over the 6,421,507 pounds produced in 1959.

This total was considerably higher than that originally projected by BDSA, the increase being attributed to continuing expansion of aircraft and missile programs calling for titanium products.

"All present indications point to a slight increase in the output of titanium mill products in 1961 because the major consuming programs should continue at their present rate," BDSA says.

"Some projects involving smaller uses," the agency adds, "will be completed, but others probably will take their place. This would indicate that production of mill forms and shapes will be about 10.5 million pounds in 1961, as compared with 9.8 million pounds in 1960."

Zinc—Further weakness has developed in prices. One company reported it was meeting competition by offering a discount of $10 a ton under established prices. This is equivalent to a reduction of one-half cent a pound.

This means that actual prices are now 11½ cents a pound, as against 13 cents before the two one-half cent cuts in December and the new development.

The trouble stems from continuing low demand, settlement of strikes at three plants, weak foreign prices, generally high US production.

Murphy Acquires Spur Oil; Owen, Banks Get High Posts

Murphy Corporation, El Dorado, Ark., a wholesale distributor of petroleum products and a retailer of gasoline, has completed acquisition of Spur Oil Company. The merger became official following approval by Spur Oil stockholders at a special meeting in Nashville, Tenn. Murphy stockholders had already approved the acquisition.

Ralph Owen, a director of Spur, has been named a vice-president of Murphy and a member of its board. Paul Banks, jr., president of Spur, becomes general manager of the Spur Oil Division.

The combined marketing systems of the two firms covers all the area east of the Mississippi, except New England and New York, plus sections of Ontario, Canada.

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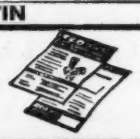

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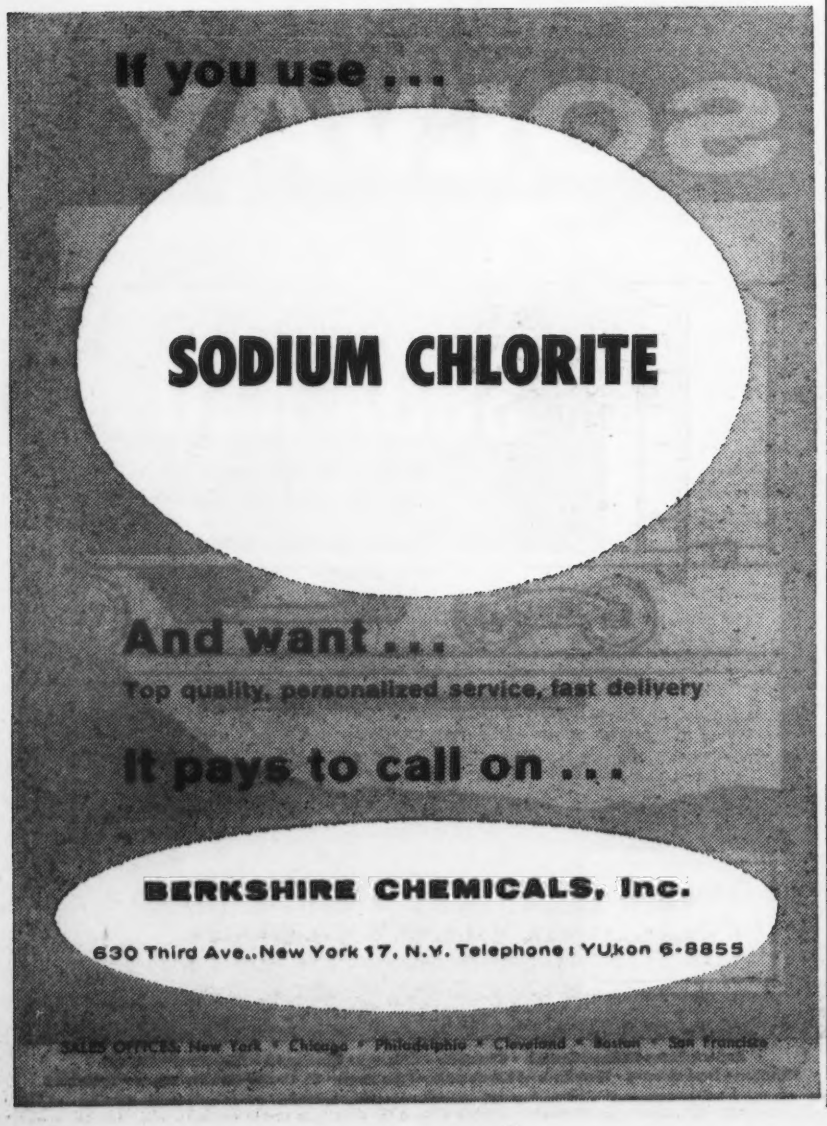
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Calcium Disodium Cleared For Use As Food Additive

Calcium disodium ethylenediamine tetraacetate was cleared as a safe additive for use as a preservative in certain foods by the Food & Drug Administration last week. Clearance was given the chemical on a petition filed by Dow Chemical Company, Midland, Mich.

FDA's order permits use of the chemical in the following amounts:

Twenty-five parts per million in fermented malt beverages; seventy-five parts per million in French dressing, mayonnaise, non-standardized dressings, oleomargarine, salad dressing and sauces, and 100 parts per million in potato salad and sandwich spread.

Products containing the additive are to be labeled to show this fact or in lieu thereof can be labeled as containing calcium disodium EDTA, followed by the chemical name in parentheses.

Potash Deliveries Dip

—Continued from page 4

tons of K_2O, an increase of 8 percent over last year. Total deliveries for all purposes were 3,514,381 tons of salts containing an equivalent of 2,070,356 tons of K_2O, an increase of 5 percent in salts and K_2O.

During the third quarter of 1960, deliveries for agricultural purposes were 212,780 of K_2O in continental US, 5,034 tons in Canada, 3,194 tons in Cuba, 705 tons in Puerto Rico, and 5,164 tons in Hawaii, making a total of 226,877 tons of K_2O, a decrease of 46 percent under last year.

Import figures for the third quarter of the calendar year are not available at this time. Exports of potash to other countries during the third quater were 120,298 tons of K_2O, an increase of 42 percent over last year.

Deliveries of potash for non-agricultural purposes were 333,883 tons of K_2O, an increase of 4 percent over last year. Total deliveries for the third quarter were 649,121 tons of salts containing an equivalent of 381,058 tons of K_2O, a decrease of over 28 percent under last year in salts and 29 percent in K_2O.

Potassium Alcoholate Plant Completed by MSA Research

MSA Research Corporation, Callery, Pa., has completed a small-scale facility for the production of potassium-t-butyl alcoholate. The alcoholate is produced as an alcohol-free powder.

The company points out that research literature has described the use of the alcoholate in a variety of base-initiated reactions where a strong base is required. The hindered nature of the t-butyl group adds special properties.

Suggested uses include: trans-esterification, condensation, rearrangement and isomerization of double bonds.

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Bacitracin Sales Rules Under Review by FDA

Food & Drug Administration is considering changing its regulations to permit over-the-counter sales of certain drug preparations containing bacitracin. A petition for relaxing controls has been filed with the agency by Burroughs Wellcome & Co., Tuckahoe, N. Y.

The company asks authority to sell topical bacitracin-neomycin-polymyxcin powder topical zinc bacitracin-neomycin- polymyxin powder, intended for human use, without the prescription of a physician.

The preparation would be labeled for use in preventing infection in minor cuts, burns and abrasion. The commissioner has allotted thirty days for filing of comments on the proposal.

Cary Chemical

—Continued from page 5

stated that construction of the petrochemical complex will be started in 1961, with completion scheduled for 1962. The petrochemical facilities will be located at Tennessee's 794-acre site on the Houston Ship Channel.

The first unit will consist of an acetylene plant with an initial annual capacity of 100 million pounds. The second unit will convert a major portion of the acetylene into vinyl chloride monomer.

The monomer will be supplied to Cary Chemicals for conversion to vinyl polymers and copolymers for use in its compounding, calendering and finishing divisions, as well as for sale to the vinyl resin markets.

Hostachem Has New President

I. O. Ruebcke is the new president of Hostachem Corporation, Mountainside, N. J. He succeeds H. E. Maurer, who will soon take over in London as managing director of Hoechst Chemicals, Ltd. Hostachem is the distributing arm for Farbwerke Hoechst AG of Germany and its subsidiaries, as well as for Hoechst Chemical Corporation, West Warwick, R. I.

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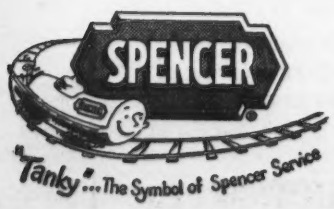

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Aliphatic Organics

The aliphatic organics' sector of the chemical industry is beginning to act with "vigah." Reports from trade sources, cleansed of all but realistic optimism, are refreshingly frank; price cutting both to stave off the import competition and to achieve an advantage over domestic manufacturers of similar products more common, and where expansions are contemplated or in the works, the thinking is big. Doubtless, if the present upbeat mood continues, the last traces of the business recession will be wiped out long before the third quarter, which miraculously became the cut-off date for the slowdown when some frail economist suggested the possibility.

Big expansion news is the 500-million-pound-a-year ethylene facility to be built by a major chemicals producer on a 3,000 acre site in Brazoria County, near Alvin, Tex. Slated for completion by 1962 and already billed as the "world's largest," the new plant will be capable of turning out substantial quantities of propylene, cumene, phenol, acetone and ethyl benzene, in addition to ethylene for which the firm has a large internal requirement. Some product, it's understood, will hit the open market.

New petrochemical facilities are also slated to rise in Sweden. Two US firms are reportedly planning joint ventures with local firms there and a third is participating in a plan to manufacture an estimated 10,000 metric tons of polyethylene products annually.

Reduced last week, in a move aimed, reportedly, at opening up new development applications, was methylene chloride. Widely used in non-flammable paint removers, in the production of photographic film, in missile cleaning, and as a component in aerosol propellent systems, the chemical is now priced at 11¼ cents a pound in tankcars and 12½ cents a pound in truckload or carload quantities, one cent below the previous schedule.

The severing of diplomatic ties with Cuba last Tuesday left some of the trade pondering the future of molasses supplies. To calm speculation, OPD made some inquiries and learned that a major US manufacturer of fermentation alcohol has four years of a five-year contract with Cuba still to go. This firm, which brought in about one million gallons of blackstrap during 1960, says it sees no trouble ahead either from the State Department or from Castro who is reportedly living up to his contract obligations.

Ethylene—A major chemicals firm moved one step closer to its announced goal of self-sufficiency in hydrocarbon raw materials last week, with the disclosure of plans to build a huge ethylene plant in Chocolate Bayou, Tex.

Scheduled for completion in 1962, the new facility will have a capacity in excess of 500 million pounds a year. It is already billed as the world's largest.

Besides ethylene, a key intermediate in the manufacture of plastics and synthetic rubber, the facility is designed to turn out propylene, cumene, phenol, acetone, ethyl benzene, and other hydrocarbons essential to the firm's own internal operations.

Assumably, some of the plant's output will be sold on the open market. Questioned on this point, a company spokesman indicated that the firm does not intend, however, to become a large-scale merchant of either propylene or acetone.

Price Trends

Advanced
None

Reduced
Methylene chloride, 1c. per lb.
Trimethy.olprop nc, c.l., 4½c. per lb.

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Jan. 8, 1960
130.50	130.56*	130.62	132.86

* Revised.

For Current Prices see page 9

Highly competitive now, markets for both these aliphatic organics could become further depressed with the additional availability next year—if sufficient quantities were up for grabs—a fear that will remain with competitors until the actual situation arises.

The Chocolate Bayou plant complex will occupy 3,000 acres in Brazoria County, near Alvin, Tex. The site was selected, reportedly, because of the availability of feedstocks and water transportation, and the proximity of the firm's Texas City plant 25 miles away where a major portion of the ethylene output will be consumed. Site preparation is to begin at once, construction to follow in early summer.

A manufacturer of ethylene since 1942, the firm uses the chemical in the manufacture of styrene monomer, which in turn, gets into synthetic rubber and polystyrene plastics. It is also used in the production of polyvinyl chloride plastics, which find typical applications in floor tile, electrical insulation and flexible films, and in polyethylene, the so-called squeeze bottle plastic.

Glycerine — Following year-end announcements of price reductions for both synthetic and refined glycerine comes a report that stocks of the chemical rose significantly toward the close of 1960 while production waned.

US Department of Commerce statistics, relayed to OPD by the Glycerine Producers' Association, show that production of crude and synthetic product amounted to 24.2 million pounds during November, down 1.4 million pounds from October and 0.1 million pounds from November, 1959, while stocks held by manufacturers at the end of the reported period totaled 53.3 million pounds, up 2.2 million pounds from October 31 and 20.2 million pounds from November 30, 1959.

If interpreted correctly, the figures indicate that the gain in production last year did not necessarily reflect a parallel rise in consumption. More will be seen, of course, when statistics for the whole of 1960 are tabulated, including those on foreign trade.

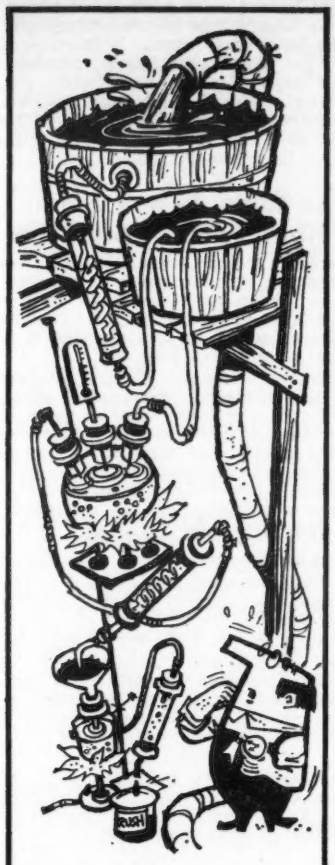
All that's known so far is that output of glycerine was 280.8 million pounds during the first eleven months of 1960, as opposed to 243.7 million pounds during the like period in 1959. Figuring the inventory position on December 1 of last year, there was a gain in sales—though not necessarily in consumption—of 16.9 million pounds.

The price reductions noted earlier were a brilliant example of one-upmanship. For what started out as a 13¾ cents a pound

Organic Chemicals Output: October

The following figures, in pounds, represent output of specified organic chemicals in September and October, 1960, as reported by the Tariff Commission.

	October	*September*
Acetic Acid:		
Synthetic	57,631,804	58,550,306
Natural (wood distillation)	.....	1,778,009
Acetic anhydride	77,574,440	85,665,366
Acetone	53,114,205	67,224,659
Acrylonitrile	9,286,847	14,305,930
1,3 Butadiene (rubber grade)	157,155,529	147,014,542
Carbon disulfide	42,625,063	39,450,207
Carbon tetrachloride	31,105,780	31,343,740
Ethanolamines (Mono-, di-, and tri)	11,574,762	9,256,843
Ethyl acetate (85 percent)	6,705,874	7,810,239
Ethylene glycol	111,678,873	115,626,561
Formaldehyde (37 percent by weight)	149,370,314	142,755,075
Methanol:		
Synthetic	167,557,384	175,976,035
Natural (wood distillation)	.....	909,680
Pentaerythritol	5,626,271	5,602,433
Perchloroethylene	17,535,492	16,082,834
Propylene glycol	13,668,734	9,140,111
Trichloroethylene	23,309,299	29,049,305



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DPi

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Aliphatic Organics

drop in synthetic glycerine prices ended up as a 2 cents a pound across-the-board cut.

Obviously not content merely to follow the competition, a leading refiner of glycerine initiated the 2 cents a pound change and within a matter of hours after news of the reduction got around, major factors in both segments of the trade took similar action. One synthetic maker made the revision retroactive to December 8, apparently due to contract commitments, while others posted an effective date of December 23.

While an appropriate way to wish customers "Seasons Greetings," the reduction did not effect cost-bitten manufacturers as a jolly way to observe the yule. With the exception of the initiating firms, naturally, trade people generally did not expect the move. One company, believing that the traditional pattern of inactivity would hold true once again—or so one might presume—was already closed for the holiday when the axes started to fly.

Behind the substantial reduction, reportedly, was the fair surplus of crude around the world and the softening US market. Unassessed as a factor leading to the change was the additional capacity recently brought on stream by a major producer of synthetic glycerine.

Sucrose—Since December 1, refined white sucrose has been selling at 9.55c. a pound in the East. This is fractionally lower than the price (9.70c.) established last July when the President cut the Cuban quota.

The lower quota does not indicate greater market stability or less concern over future availability of supplies, according to trade members with whom the situation was discussed last week. In fact, reliable sources indicated a battle royal looms on Capitol Hill as the various sugar lobbies, Congressmen and administration aides, outgoing and incoming, push their respective cases for or against extension of the present Sugar Act or for a new law, incorporating advantages to them.

A published report last week saw House Agricultural Committee chairman Harold D. Cooley (Dem., N.C.) introducing legislation after Jan. 20, extending the present sugar act through 1961. It would reportedly contain no provision for Presidential authority to cut off sugar purchases from the Dominican Republic. This, of course, is another sore point.

Although the outlook is loaded with storm clouds, one thing is clear. Some new measure must be passed by Congress without too much delay. The present Sugar Act expires March 31.

Trichloroethylene—A fitting climax to a long, long story of import pressures and a continually depressed market came at year's end, as a major manufacturer of trichloroethylene announced a price reduction of 1½ cents a pound.

Under the firm's new schedule, later adopted by a big-league competitor, delivered prices are set-up as follows: truckload and carload of drums, 12½c. a pound; tank wagons and tank cars, 11¾c. and 11¼c. a pound, respectively; and less than truckload quantities, 14c., except west of the Rockies where the price is 14½c. a pound.

Trichloroethylene is widely used in the metal-working industry for vapor degreasing. It is also employed in a variety of solvent uses, including cleaning of critical missile and electronic parts, and as a nonflammable thinner for paints.

Prior to announcing the price reduction, the responsible firm disclosed plans to dis-

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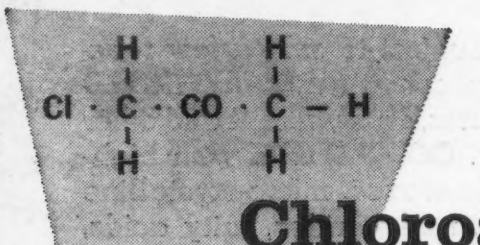

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See page 130—1961 Chemical Materials Catalog
See page 73—1961 Buyer's Guide Issue

Aliphatic Organics

continue trichlor manufacture at Wyandotte, Mich., and consolidate operations at Niagara Falls, N.Y. Here, reportedly, the firm is installing a new manufacturing process which is expected to cut production costs appreciably. No loss of capacity or output will be involved in the relocation, reportedly.

Trimethylolpropane — January 1, the carload price of trimethylolpropane was posted at 30½c. a pound, 4½ cents lower than the previous schedule.

Drugs Added to Basic List Under Narcotic Control Law

The list of narcotic drugs which are given the "basic classification" in the new narcotics manufacturing control law just becoming operative is to be expanded to include an additional half-dozen products and their salts.

A notice to this effect was published in the *Federal Register* last week by the Bureau of Narcotics along with a request that any industry comments on the proposed additions be made to the commissioner by February 6.

Following are the items to be added: (Where a name and address follows the listed drug, it is that of the applicant who has applied for the drug to be listed. Where no applicant is listed the commissioner has acted on his own motion.)

Dihydromorphine: diphenoxylate (Ethyl 1-(3-cyano-3, 3-diphenylpropyl)-4-phenyl-4- piperidinecarboxylate)—G. D. Searle & Co., Chicago; metazocine (2'-Hydroxy-2, 5, 9-trimethyl-6, 7-benzomorphan); oxymorphone (14 — Hydroxydihydromorphinone)—Endo Laboratories, Inc., Richmond Hill 18, N.Y.; pholcodine (Morpholinylethylmorphine) — Bard-Saratoga Laboratories, Yonkers, N.Y.; piminodine (Ethyl-4-phenyl-1-[3-phenylamino) -propyl]-4-piperidine carboxylate)—Winthrop Laboratories Division of Sterling Drug, Inc., New York.

DuPont 'Teflon' Fry Pan Brought to American Market

An intriguing new fry pan, now being introduced in New York, cooks without fat, is easy to clean, and economical to use, thanks to a non-stick surface of a "Teflon" TFE-fluorocarbon resin produced by E. I. duPont de Nemours & Co., Wilmington, Del.

The "T-Fal" pan is one of the first consumer products offering the advantages of "Teflon" to the general public. It is an import from France, where, in the four years since its introduction, it has become a best-selling item in the housewares field.

Linseed Oil: New Use

—Continued from page 5

problem is indicated by development of new specialized emulsifiers (from linseed oil fatty acids) by the government. USDA scientists have used the emulsifiers to produce paints that have remained stable since they were made in November, 1959. Other emulsions are being sought that will remain stable in paints at least four years.

A linseed oil-in-water emulsion paint may be a necessity if this vegetable oil is to continue competing with synthetics in the paint industry, says the government. Use of linseed oil in paint has declined in the US from 2.2 to 1.2 pounds per gallon in the last twenty years. Synthetic emulsions are now competing with linseed oil in its major area of use—exterior paints for wood. Ease of application and clean-up, such as water-washing of brushes, make emulsion paints especially attractive to do-it-yourself painters.

Cerro Corp. Is New Name Of Nonferrous Metals Firm

Cerro de Pasco Corporation, New York, a producer and fabricator of nonferrous metals, has changed its name to Cerro Corporation. The change is in line with action approved by stockholders at the annual meeting last May.

Robert P. Koenig, Cerro's president, says the new name was adopted "in the belief that a more general name, rather than one of local origin, would more readily suggest the scope of our present business and the future expansion of our activities."

Fumaric Acid Gleam

—Continued from page 3

and three more, besides the maleic plant, are due for completion within the next three months.

Marketing of both the fumaric and maleic output will be handled by the Heyden Chemical Division. The maleic will go to manufacturers of paints, varnishes and synthetic resins, as well as being used as a starting material for fumaric acid.

Fumaric outlets include paints, varnishes, resins and other industrial chemicals. A purified grade is used as an acidulant by food processors.

Benzene Scramble

—Continued from page 3

neighborhood of 775 million gallons. Coke-oven benzene capacity is reckoned at about 210 million gallons per annum.

Humble will construct toluene dealkylation facilities at Baytown for benzene manufacture following the popular trend of employing toluene as a raw material. The process employed will be Humble's own, rather than the currently in-vogue "Hydeal" process developed by Ashland Refining Company and licensed by Universal Oil Products Company.

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Trade Name Chemicals

Peroxygens, Spurred by Plastics, Find Increasing Market as Catalysts

Use of organic peroxides as polymerization catalysts has continued a steadily upward trend as a result of the spectacular rise in plastics consumption over the past decade. Conventional polyethylene production takes a 30-35 percent slice of peroxides output for polymerization purposes. And producers are keeping a sharp eye on this major outlet with a view to extending the market. An up-and-coming development, now in the experimental stage, is in the high-temperature field for cross-linking polyethylene to make a thermosetting plastic. Two or three organic peroxides are under study for this application and show good promise.

Use of the peroxides in polyesters has come up fast in recent years. The market fell off last year as a result of the decline in buying of luxury items (plastic boats) and the slump in auto production (where polyesters are used in heater duct work, etc.). Despite this, polyesters still supplied peroxide producers with 20 percent of their market in the plastic field.

Production of PVC and Copolymers in 1960

Production of polyvinyl chloride and copolymers held up well in 1960 and major miscellaneous uses for peroxide catalysts continued to be in alkyds and silicones.

In the case of styrene, polymerization is accomplished both thermally and by use of a peroxide. The bulk of styrene is polymerized thermally. Outside the plastics field, benzoyl peroxide has found sustained use as a bleaching agent for flour. Some lecithin is also bleached with benzoyl peroxide.

Many peroxides can be used to accelerate the rate of polymerization reactions, and the polymers produced with the aid of peroxides as catalysts include a wide range of synthetic rubbers, plastics and resins.

For example, the controlled polymerization of polyester-styrene varnishes to fully-cured solids is essentially a vinyl-type polymerization and, thus, free radical initiators such as peroxides and azo compounds might be expected to be good catalysts. Also, the fact that their action can be modified with activators and promotors has led to extensive use of peroxide catalysts.

Choice of a specific peroxide depends on necessary or desired curing conditions. Benzoyl peroxide is commonly used for a high-temperature cure, since it does not decompose before the resin has reached optimum curing temperature.

In molding powders—which are often compounded at high temperatures for a relatively long time—alkyl peresters, such as t-butyl perbenzoate, may be used.

Benzoyl Peroxide Available as Paste

Benzoyl peroxide is a solid which dissolves slowly in polyester varnishes and is, therefore, usually dispersed in a small amount of styrene before addition. More convenient for use are the catalyst pastes supplied to polyester manufacturers under trade names.

Probably the most widely known of these products are those made by the Lucidol Division of Wallace & Tiernan, Inc., which specializes in the manufacture of peroxides.

"Luperco ATC" is a paste of benzoyl peroxide and tricresyl phosphate which dissolves and disperses easily in the varnish. "Lupersol DDM," methyl ethyl ketone peroxide in dibutyl phthalate, is a well-known low-temperature catalyst.

The amount of catalyst used will depend on the type of resin, desired speed of cure and dimensions of the cured piece. Generally, the practical range is 0.1-2.0 percent peroxide; the former figure is typical of heavy castings, while high concentrations are necessary in thin laminates.

Promotors and activators are used to change the relation between the time the resin takes to gel and cure time, or time to become fully cured. In any case, a catalyst is still necessary.

Cobalt naphthenate is a general-purpose activator for use with ketone peroxides. Cobalt has a tendency to tint the polyester, but in the low concentrations [illegible] the discolorization is hardly discernable.

PEROXYGENS: CATALYST USE

Polyethylene	30%
PVC & Copolymers	25%
Polyesters	20%
Polystyrene	10%
Polyacrylates	5%
Miscellaneous	10%
Total	100%

Promotors used with acyl peroxides are typified by diethyl aniline or an aliphatic thio alcohol such as lauryl mercaptan. Concentrations are most often in the range of 0.05-0.5 percent of active substance.

Since promoters and activators are often powerful and reducing agents, they are never mixed directly with the catalyst. Generally the promotor is mixed into the resin and then the catalyst.

Room temperature cure is usually effected with aldehyde or ketone peroxides such as methyl ethyl ketone peroxide or cyclohexanone peroxide.

Part of the increased use of such catalysts is the result of growth in plastic materials like polyester resins, which cure without volatile by-products and harden and bond in atmospheric conditions.

Depolymerization Reactions

Depolymerization reactions may also be catalyzed by peroxides to make possible recovery of monomers and lower polymers from plastic scrap. Polymers such as starch, protein or cellulose can be made to depolymerize in the presence of peroxides.

Starch treated with hydrogen peroxide in the presence of a metal catalyst results in production of a modified starch of lower viscosity and useful properties.

Depolymerization of cellulose is achieved by treatment with hydrogen peroxide solutions in the production of cellulose lacquers and spinning solutions. Aging of alkali cellulose, essentially a depolymerization process, is promoted by the incorporation of hydrogen peroxide.

News Briefs

• **Container Corporation of America** has introduced a new wax laminated paperboard for folding cartons called "Peel Proof." According to William P. Peters, general manager of research and development, the new product makes available wax laminated paperboard two to three times stronger.

The company is switching all production of moisture and grease-resistant wax laminated board to the new product and will offer the new board at no increase in cost.

• **Michigan Chemical Corporation** announces development of a concentrated algaecide for use in swimming pools. The new concentrate, trade-named "Algimaster," is a combination of compounds known to be active adgaecidal agents. Essential ingredient is a bromine-containing compound which is effective at a concentration as low as two parts per million.

Michigan Chemical says this is the first of a projected line of products designed for swimming pool use, and will be marketed through distributors.

• **Metal Hydrides, Inc.,** is starting the new year by marketing lithium aluminum tri-t-butoxy hydride, a new complex hydride that will reduce acid chlorides to aldehydes. The compound, available in laboratory quantities, is also useful for stereospecific reductions of steroid ketones to hydroxy derivatives.

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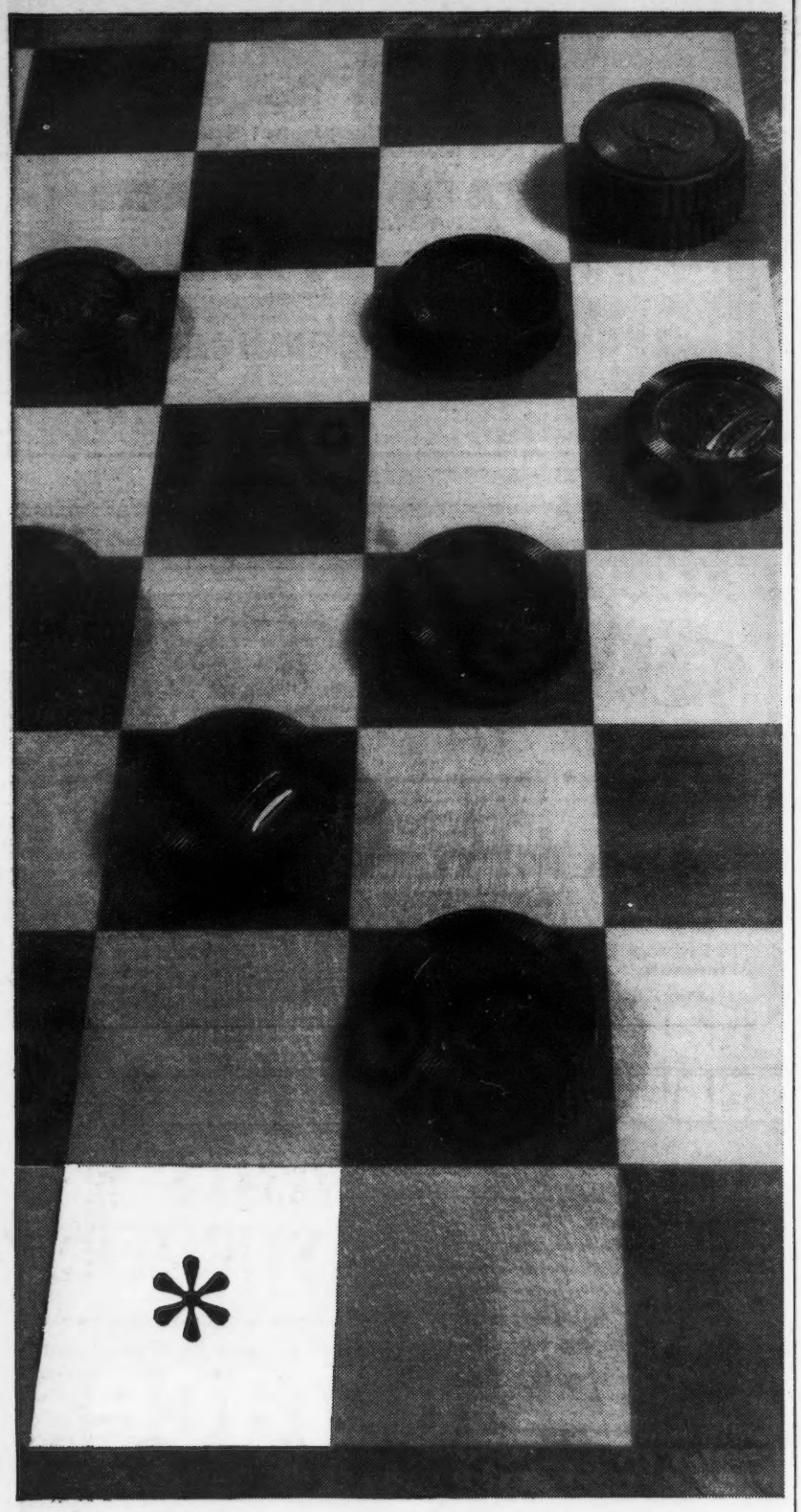

*some moves are obvious,

like Koppers adding Halowax®

Koppers, long an important factor in coal chemicals, last year acquired the plant and products of the Halowax Division, Union Carbide Corporation, at Wyandotte, Michigan. These products include chlorinated paraffins, and chlorinated naphthalenes and other chloro-aromatics, for most of which Koppers supplies the raw materials. These Halowax products have a host of applications where their chlorinated structure proves valuable. For a complete listing and more product information, write Koppers Company, Inc., Tar Products Division, Pittsburgh 19, Pa.

KOPPERS COAL CHEMICALS

Coal Chemicals

Talk in the trade last week centered around the plans of a St. Louis-based company to build a major chemical complex which would include facilities for the production of ethylene, benzene, naphthalene, phenol, propylene, cumene, acetone and ethyl benzene. With the announced aim of providing hydrocarbon self-sufficiency, the plant will be located on a 3,000 acre site some twenty-five miles from Texas City, Tex., seat of other production facilities of the company.

Construction is set to start this summer with completion slated for an unspecified date in 1962.

Boast of the sponsoring company is a projected 500 million pound ethylene plant which, it is claimed, will be the world's largest unit.

Other facilities of interest to consumers in a short supplied market include the company's plans for benzene and naphthalene.

A 42-million gallon a year benzene unit is scheduled, the largest single unit proposed in recent years. Material will be used captively but should release other supply for consumption in the open market.

The naphthalene plant is more ambitious with 50 million pounds a year slated.

In speaking of these two chemicals the company says the new facilities will not provide its full chemical needs but should, in conjunction with other available material, insure the company and its customers of protection against future tight supply conditions.

Another giant step is the 50 million pound a year phenol unit to be constructed. Employing the cumene-oxidation process, the new unit should boost the company's phenol capacity to over 200 million pounds.

Other big news from Texas last week revealed the startup January 2 of a "Hydeal" unit at Houston refinery.

Becoming operative right on schedule the benzene unit will double the refiner's capacity to 17-22 million gallons. Former reported output was placed at 10 million gallons.

American Iron and Steel Institute has discarded the steel capacity rate of production in reporting on weekly activity. Forecasts of output on a week to week basis are also absent.

Apparently placing trust in the adage "no news is good news" the Institute has packed the anemic steel rate away —at least for the duration of the recessionary slowdown.

Instead, an index of production has been substituted that yields higner numerical figures which should be a source of optimism for all.

For example, using the old steel capacity rate as a measure, based on 1960 theoretical industry capability, production for the week ended Dec. 31 figured to be 38.7 percent of capacity. Under the index of production system (based on weekly average output for 1957-59), the figure becomes a lofty 59.2 percent. Feel better already?

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Jan. 8, 1960
117.45	117.45	117.55	118.48

For Current Prices see page 9

Basic Products

Benzene—Increased supply of benzene was reported last week.

Unfortunately for cokeoven operators the sources of supply will be a petroleum processor and a chemical firm.

Larger volume of the two will come from the chemical firm which has plans for a 42 million gallon-a-year plant to be built as part of a chemical complex located near Texas City.

Material is primarily destined for captive use in the firm's booming styrene monomer production line.

Construction is set to start this summer with completion slated for 1962.

The other benzene news came from a Houston refiner who started up a large scale "Hydeal" plant January 2.

Coming on stream as scheduled the new facility boosts the refiner's benzene capacity to 17-22 million gallons, double the 10 million gallons reported as the oil company's former capacity.

Other "Hydeal" units, banked on to ease the current short benzene supply, are in various stages of development.

One unit, which was reported as operating last August with a capacity of 4.5 million gallons, is now indicated by trade sources as not functioning with success.

Another "Hydeal" unit, slated for Kentucky, is reported on schedule and will open in February.

Naphthalene—Biggest news of the week came with the announcement of a 50 million-pound-a-year plant to be built in Texas.

To be used captively the added unit is another in a long string of petroleum naphthalene plants being built or planned to beat the shortage of material.

What will this added capacity do to the market?

Much depends on whether all the proposed plants come on stream. Right now 1960 production is projected to be 500 million pounds. Additional plants building or proposed tally 425 million pounds.

Total capacity that might be expected in 1962—925 million pounds.

Industry estimates of consumption see a 625 million pound market by 1965.

When asked what will happen to the 300 million pounds so-called excess material, some trade sources reply that not all the proposed units will come on stream.

Other sources say some of the proposed new capacity is destined for overseas although this market may not continue as strong as it has been when foreign production units begin to increase their capacity.

Biggest fear, of course, is that oversupply will cause price to plummet.

Naphthalene prices recently were advanced and now present a spread of 6¼ to 7c. a pound. Some trade sources offer the opinion that the proposed capacity

Aromatic Chemicals Output: October

Figures for benzene, xylene and toluene include cokeoven operators, tar distillers and petroleum operators. Creosote oil statistics include distillate as such, and creosote content of solution, on 100%-creosote basis.

	October 1960	October 1959	First Ten Months 1960	First Ten Months 1959
Aniline ....lbs.	10,122,837	11,837,129	101,667,708	110,685,727
Benzene ....gals.	35,375,717	17,609,609	377,827,908	259,452,773
Creosote, oil ....gals.	5,557,746	4,819,148	74,374,684	73,657,437
Cresols, m-p and o-m-p fractions....lbs.	3,748,528	2,432,854	40,619,609	27,825,094
Cresylic acid, refined all sources....lbs.	5,795,557	4,428,461	48,614,742	47,547,503
Dodecylbenzene ....lbs	29,370,546	37,478,764	394,907,466	401,886,726
Monochlorobenzene ....lbs.	47,122,248	43,227,134	496,974,654	446,788,139
Naphthalene, crude ....lbs.	36,969,693	16,158,416	434,807,675	336,163,409
Phenol, tech. and USP....lbs.	60,985,552	48,902,263	618,725,418	541,829,800
Phthalic anhydride ....lbs.	29,923,512	23,274,023	319,447,203	301,377,011
Styrene monomer ....lbs.	144,869,640	138,922,515	1,476,145,284	1,169,203,802
Toluene ....gals.	25,453,420*	18,862,706	225,859,144	201,473,142
Xylene ....gals.	27,119,170	19,253,496	265,438,095	183,394,210

Source: Tariff Commission.
* Partly estimated.

Coal Chemicals

hikes would by 1962 drop prices down below the level from which they were raised.

This prospect is particularly of concern to the new petroleum naphthalene producers who will have to count capitalization costs.

Cokeoven suppliers of material do not have this problem and in addition have the advantage of employing their naphthalene as fuel if the market is glutted and price dips below profitable levels.

Phenol—A major supplier last week named the site of its long-proposed third phenol plant.

In disclosing plans to construct a major chemical complex the St. Louis-based firm revealed a 50 million pound-year phenol facility will be among the production units.

The addition will boost the company's phenol capacity to over 200 million pounds annually.

Production method to be employed will be the cumene-oxidation process.

Plans to build the facility were known last September but at that time full details of the total chemical complex were not revealed.

Site of the plant is Alvin, Tex., some 25 miles away from Texas City where other facilities of the firm are located.

Expansion of phenol capacities is due as ratio of current capacity and consumption indicates. One trade source remarked last week that phenol use in 1960 was at the highest level compared to capacity since the Korean War era.

Toluene—Cokeoven price of 25½c. a gallon, delivered, has forced some petroleum suppliers to become price competitive in midwestern industrial areas.

In markets far from cokeoven producing areas, for example, New England, petroleum suppliers are calling the shots.

As predicted this apparently will be the pattern of selling as the two sources of supply continue to maintain separate selling schedules.

Steel Production

	Net Tons	Index of Production*
Production week ended Dec. 31, 1960	1,103,000	59.2
Production previous week	1,325,000	71.2
Preliminary Production, 1960	99,260,000	101.9
Production, 1959	93,446,132	96.2

* Index of production based on average weekly production 1957-59.

Dyes

Vat Green 1 (C.I. 59825)—Production declined in October to 203,256 pounds after retgistering 249,517 pounds the previous month.

Direct Black 38 (C.I. 30235)—Output dropped some 55,000 pounds in October to 318,736 pounds after hitting 374,033 in September.

Azoic Coupling Component 2 (C.I. 37505)—After recording no production in September, volume reached 32,786 pounds in October.

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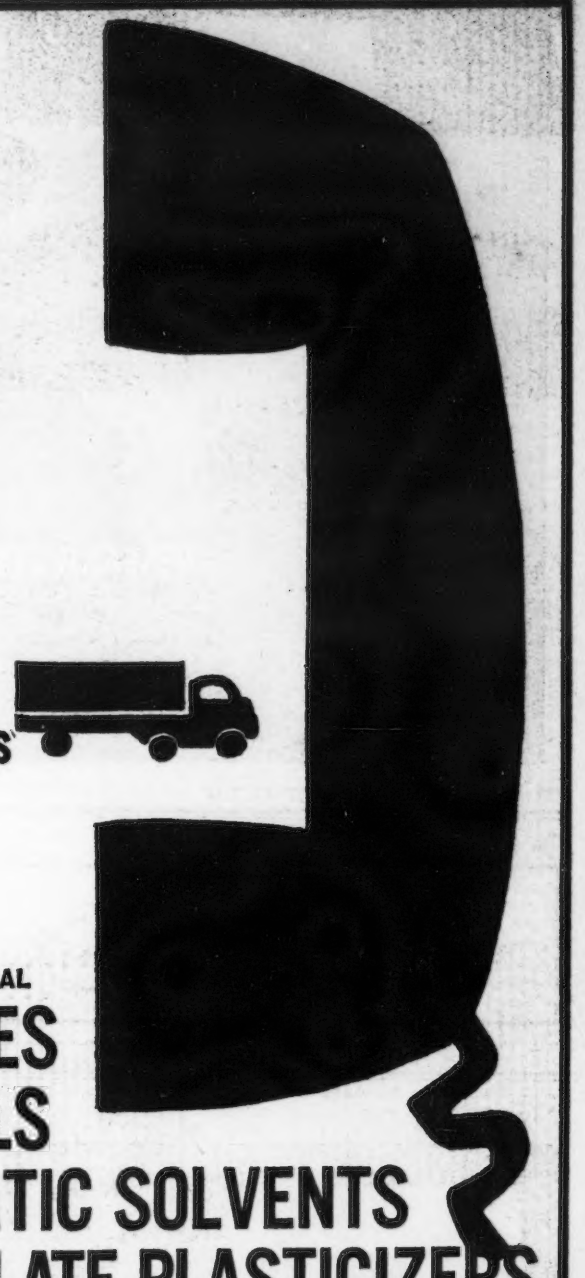

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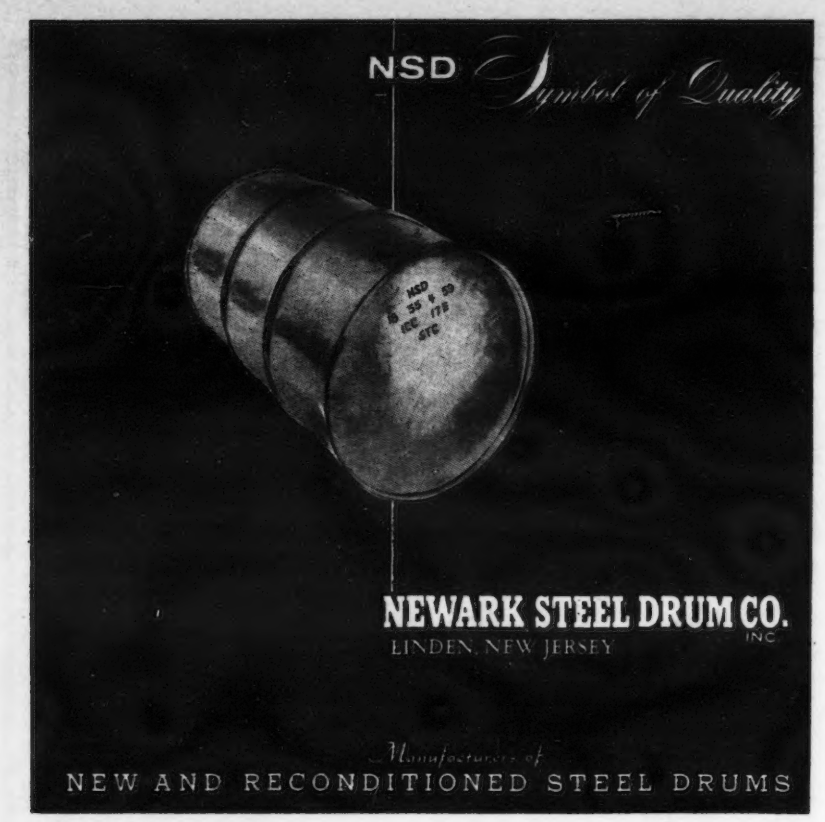

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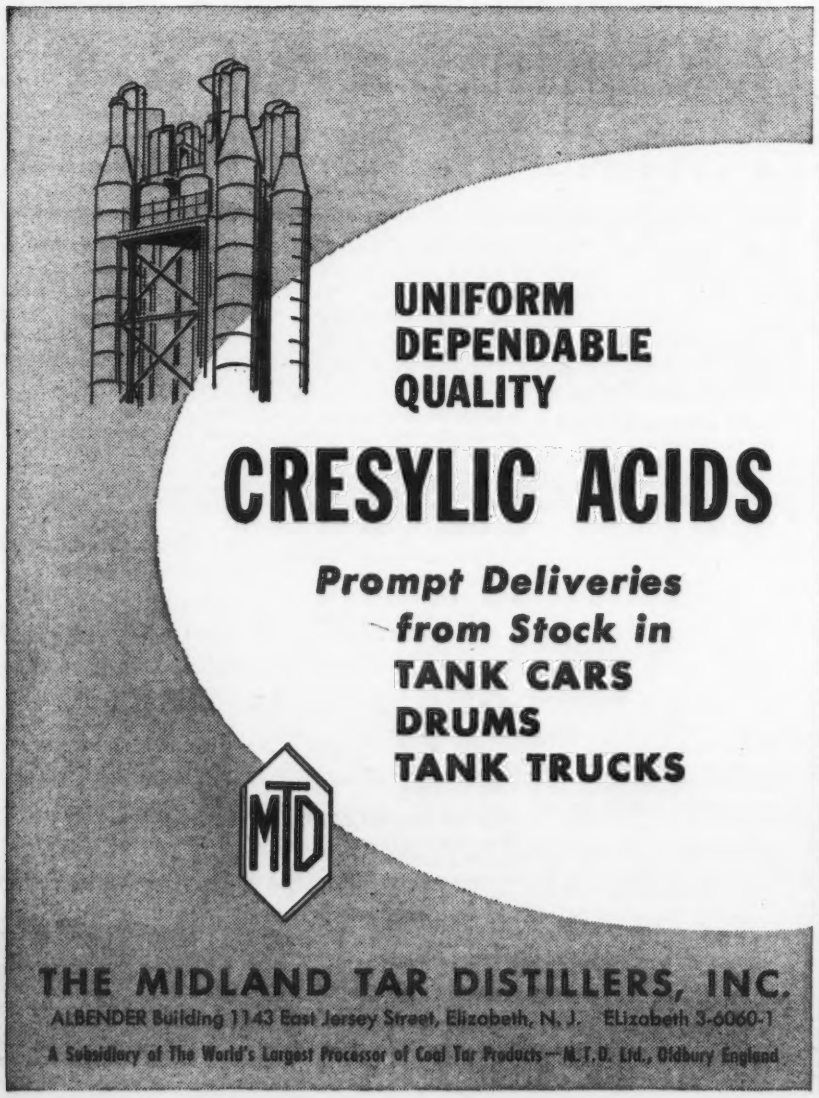

Coal Chemicals

Intermediates

Butylated Hydroxyanisole—Material is reported unchanged in price at $4.75 a pound in 55-lb. drums.

Phthalic Anhydride — Producers continue to report tightened supply of material.

Currently short because of curtailed naphthalene output there seems no immediate prospect of improvement. Future estimates are bright, however, as naphthalene capacity is due for expansion through added units and the predicted pickup in steel come the second half of 1961.

Polychrome Sets Expansion To Be Valued at $700,000

Polychrome Corporation, Yonkers, N. Y., is making arrangements for a $700,000 expansion program. The company would spend $300,000 for establishing new aluminum plate facilities and for development of a new plate tentatively known as "Plykote"; $250,000 for new chemical and allied products, and $150,000 to increase its sales and office staff.

The company's plans came to light last week when it filed a registration statement with the Securities & Exchange Commission covering 125,000 shares of common stock to be offered for public sales to finance the program.

The $250,000 chemical investment would include but would not be limited to photographic chemicals.

Vitro Corp. Buys Unit

—Continued from page 5

into a new royalty agreement. It will run until December 31, 1974, and gives Vitro exclusive United States and Canadian rights to all present and future Pechiney process and product patents involving rare earth chemicals, metals, alloys, and related compounds.

It also provides for a mutual exchange of know-how in the field between Vitro and Pechiney during the same period through 1974. Such products as thorium, scandium, yttrium, hafnium and zirconium compounds are also included.

Vitro Chemical Company has manufacturing operations at Chattanooga, Tenn., and Salt Lake City, Utah. It produces inorganic chemical products for industry and uranium concentrates for the Atomic Energy Commission. Industrial products include rare earth and other inorganic chemicals, metals and alloys with special emphasis on glass polishing, ceramic, missile-space, metal finishing and electronic outlets.

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Agricultural Chemicals

Trade estimates for the new year seem to conform with the recent long-range predictions made by the National Agricultural Chemical Association a few weeks ago. That group saw a leveling out of the wide-swinging sales curve that have marked much of the industry in the post-war years. This prediction was made concerning the pesticide industry particularly, but would now seem applicable to most of the agricultural chemicals trade.

Weather was a big factor in dampening a good sales performance in 1960. This year, the trade anticipates the weather will cooperate by coming closer to the mean temperature and precipatation established over the years. Should the weather be normal for the year, trade men feel that sales will be above the levels set last year.

Pesticide producers feel that there will be lesser number of new pesticides entered on the market in 1961, but that they will be good ones. The high cost of research and development and expenses incurred meeting government approval should tend to discourage large-scale operations in finding new pesticides.

In its annual report, the Tennessee Valley Authority states that advances in better fertilizers continued, particularly in liquids made with the newly developed superphosphate acid. Techniques of smelting phosphate were improved. Design work started on a new and larger furnace, the report reveals, that will replace worn equipment and restore TVA's phosphorus production capacity for fertilizer development and national defense.

The Food & Drug Administration is expected to ask for legislation to amend the food additive law to exempt from the Delaney anti-cancer clause feed additives which do not cause cancer during the life-time of the animal at recommended use level and which do not leave residues in animal tissue, according to the Animal Health Institute.

The publication states that at the present time the Delaney clause exemption for non-residue feed additives appears to be an answer to some of the critical problems facing veterinary drug and feed industries.

Price Trends

Advanced

Ammonium nitrate, $3 per ton
Nitrogen solutions, manufacturing type, $6 per ton
Nitrogenous sewage sludge, 15c. per unit NH_3
Potassium muriate, 2½c. per unit K_2O
Potassium sulfate, 3c. per unit K_2O

Reduced

None

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Jan. 8, 1960
110.71	109.41	111.26	110.95

For Current Prices see page 9

Animal and Plant Foods

Crop production in 1960 was up 4 percent from 1959 and was 3 percent above the previous high reached in 1958. Crop Reporting Board's year-end summary calls it a record breaking year. Harvested acreage in 1960, at 321 million acres, was 1 percent below 1959, about the same as in 1958.

Animal Proteins—While listings for animal proteins held to ranges established in previous weeks. Fishmeal and scrap are reported to be unchanged in quotation, but some slight improvement in undertone has been felt by trade sources.

The colder weather that hit much of the country over the past month has helped to move feedstuffs, it is reported. From all accounts, December should stack up as a fairly good month from the stand point of volume. Prices, however, remain slightly lower.

Nitrogenous sewage sludge is presently 15c. per unit of ammonia higher in Chicago, according to schedules announced earlier in the season.

Ammonium Nitrate—Up $3 per ton from the December listing of $67 per ton, ammonium nitrate is presently quoted at $70 per ton. Last year, the low off-season price was $63 per ton, which increased an average of $1 per ton each month. The new prices are in accord with the previous announced listings, released at the beginning of the fertilizer season.

Nitrogen Solutions—While fertilizer grade nitrogen solutions held to its listings of $164 per ton, nitrogen solutions used in the manufacture of fertilizers is newly quoted at $132 per ton. This price is scheduled to hold until June 30, 1961. The higher listing for manufacture type fertilizer, nitrogen solutions represents a $7 per ton price boost. Previous price and been $125 per ton.

Potash—The January 1 advance of 2½c. per unit K_2O brings the price for standard muriate (62-62 percent K_2O) up to 37½c. per unit. Coarse or granular muriate is at 38½c. per unit K_2O, while granular material in bags is at $28.10 per ton. Prices apply on contracts made before July 1, and are scheduled to remain in effect until June, 1961.

Also ocoming in for a January 1 price increase is potassium sulfate. Those listings are up 3c. per unit K_2O. The January to June price is 70½c. per unit, on contracts made before June of last year.

Deliveries of potash for agricultural purposes in the US, Canada, Puerto Rico, and Hawaii by eight principal American producers and also the importers, totaled 2,810,762 tons of salts containing an equivalent of 1,643,384 tons of K_2O during the first nine months of 1960, reports the American Potash Institute.

Deliveries of potash for non-agricultural purposes amounted to 116,323 tons of K_2O, an increase of 8 percent over last year. Total deliveries for all purposes were 3,514,381 tons of salts containing an equivalent of 2,070,356 tons K_2O, an increase of 5 percent in salts and K_2O.

Gypsum—Crude gypsum mined in the US in 1960 approximated 10 million short tons and was valued at $34.7 million, according to reports of producers to the Bureau of Mines. Imports of crude gypsum, about 14 percent below similar imports in 1959, totaled about 5.3 million tons valued at $11.9 million in 1960.

About one-fourth of the crude gypsum was used uncalcined as Portland cement retarder, agricultural gypsum, and filler. Output of calcined gypsum was reported at nearly 9 million pounds in 1960, about 3 percent below the previous year. Consumption of most gypsum products in 1960 was less than in 1959 since sales of finished gysum products for the most part fluctuate with building activity. Expenditures for new construction in the US amounted to $45.2 billion for the first 10 months of 1960, comprising $31.8 billion for private and $13.4 billion for public housing.

Pesticides

US defenses against crop and livestock diseases, harmful insects, and other farm pests were strengthened during 1960, reports the US Department of Agriculture. Despite the tight controls, some pests succeeded in invading this country.

As an example of the strict inspection system, USDA reports that at an average of every 17 minutes one inbound pest was stopped at US ports of entry. And demonstrating the speed with which an uncontrolled new pest can spread in the jet age, the face fly had been found in 24 states by the autumn of 1960. This foreign livestock pest first became troublesome in the US only during the previous year.

Regulatory agencies of USDA's Agricultural Research Service intensified efforts in 1960 to bar foreign pests from entering this country and to wipe out or control those that have already entered. Their work is helping especially to prevent pest invasions mavored increasingly by today's speed of transportation.

Efforts made outside this country included the start of agricultural quarantine inspection of aircraft leaving Nassau and Bermuda for this country. Technical assistance in insect survey and detection methods was made available to several countries of the Middle East, South Asia, and Africa. In addition, flower bulbs for shipment to the US were inspected by ARS personnel in France, Belgium, Italy, Germany and Holland. The USDA reports that the national fight against brucellosis, a costly disease of livestock entered a new phase when New Hampshire was pronounced brucellosis free, the first state to so qualify.

Petroleum Derivatives

Plans have been revealed for a mammoth complex of chemical facilities which, among other hydrocarbon capabilities, will include the capacity to make 42 million gallons of benzene annually. To be built by a St. Louis-based chemical producer, the projected units will be located twenty-five miles from Texas City, Tex., and are scheduled for completion next year. Other facilities slated for construction at the site include what reputedly will be the world's largest ethylene plant with annual capacity of 500 million pounds, a naphthalene unit of 50 million pounds capacity and a 50 million pound phenol plant.

One refiner happily kept a new year's promise and started up a large-scale "Hydeal" plant on January 2. Located in Houston, the addition of the new facility will approximately double the refiner's benzene capacity to 17-22 million gallons a year. Former capacity was placed at 10 million. It's too early to determine the success of the new venture and plant officials have deferred any qualitative comment until the unit has been operating for a reasonable period.

Trade observers say the new capacity couldn't have come at a better time as benzene supply remains far behind booming demand.

More capacity via the "Hydeal" route is expected early in February when a unit building at a Kentucky location is to be completed. The facility is expected to become on stream as scheduled, opine trade sources.

In still another move, a Baytown, Tex., refiner has plans to enlarge its 25 million gallon benzene unit to 50 million gallons by 1962. Production method will be dealkylation of toluene.

Down went crude oil production and demand in October as compared with September, says Bureau of Mines. Stocks and well completions climbed.

Production of crude petroleum averaged 6,958,000 bbls. a day, a decline of 13,000 bbls. from September average. Demand dropped 192,000 bbls. a day while crude stocks rose 1,024,000 bbls. to 232,990,000 bbls. on October 31.

Well completions for the tenth month totaled 3,978, compared with 3,914 in September and 4,115 in October, 1959.

Concerning refined products, runs to stills dropped to 7,908,000 bbls. a day after averaging 8,100,000 bbls. in September.

Stocks of refined products increased 12,873,000 bbls. to total 561,891,000 bbls. at the end of October.

Operating rate of refineries in October was 81.3 percent, compared with 83.5 percent in September.

Wholesale price index (1947-1949 equals 100) for crude petroleum and petroleum products was, according to the Bureau of Labor Statistics, 121 for October, compared with 120.7 for September and 114.5 for October, 1959.

Price Trends

Advanced

None

Reduced

None

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Jan. 1, 1960
103.74	103.74	103.74	103.04

For Current Prices see page 9

Aromatic Solvents

Benzene—A Houston refiner started the new year with a flourish by bringing in a "Hydeal" unit on January 2.

According to the producer capacity is doubled to the vicinity of 17-22 million gallons by the addition of the facility. Former capacity of the Houston plant was 10 million gallons.

As yet there's no word on the success of the unit and none can really be expected so quickly after startup. Plant officials deferred comment preferring not to make a statement until operations had been sustained for a reasonable period.

Assuming a normal amount of time for shaking down into working order, the new plant will soon be helping to ease the tight supply of benzene.

Next "Hydeal" unit scheduled to come on stream is due in February at a location in Kentucky. Expectations are that the plant will come on as scheduled.

Other "Hydeal" units are faring with rather mixed success. One refiner is still abuilding in two locations—Corpus Christi and Tulsa.

Another refiner, once rumored to be slating a unit for Pasadena, Tex., has not received approval for the go-ahead, according to the trade.

Another unit with 4.5 million capacity, hailed last August as the world's first operating plant is beset with troubles and is still not operating with any great degree of success, say trade sources.

Also in the works are plans of Baytown, Tex., refiner to double benzene capacity to 50 million gallons by 1962 via dealkylation of toluene.

In a move to provide self-sufficiency in hydrocarbon raw materials, a major chemical producer plans to build a chemical complex in Texas which will be capable of making 42 million gallons of benzene annually.

Despite the continuing high production by petroleum producers benzene supply is still described as tight.

Hitting a year-high total of 28 million gallons in October, oil firms still find themselves hard pressed to supply a booming market.

Toluene—Petroleum suppliers are maintaining their advantage in the market at 25c. a gallon, f.o.b. freight equalized.

Cokeoven sources are, however, adding spice to the market by going into the midwestern industrial areas with a 25½c. a gallon delivered price.

Petroleum suppliers are meeting this competition in the cities where it is arising—Chicago, Detroit, etc., and sticking to their own schedule where cokeoven competition does not exist to any extent—New England marketing areas for example.

Petroleum suppliers are not unduly worried by the cokeoven competition because they know it is not backed up by large inventories. With steel rate down cokeoven operators are turning out about 12 percent of total supply.

What business is being taken away from petroleum suppliers by the more attractive cokeoven price is minimal.

Crude Oil Stocks

Domestic and foreign crude petroleum stocks at the close of the week ended Dec. 24 were 32,000 bbls. higher than at the end of the preceding week.

Week ended Dec. 24—236,932,000 bbls.

Preceding week—236,900,000 bbls.

This increase comprises a decrease of 736,000 bbls. in stock of domestic crude and an increase of 768,000 bbls. of foreign crude.

(Source: Bureau of Mines)

LPG's

Output of lp gases in the period December 1-15 dropped to 348,095,000 gallons after hitting 370,593,000 gallons in the last two weeks of November. Production in the first two weeks of December a year ago was 352,493,000 gallons.

Stocks dipped also, with inventories recorded at plants terminals and underground figured at 1,031,580,000 gallons on Dec. 15 as against 1,127,926,000 gallons on November 30 and 837,750,000 gallons a year ago on December 15.

Waxes

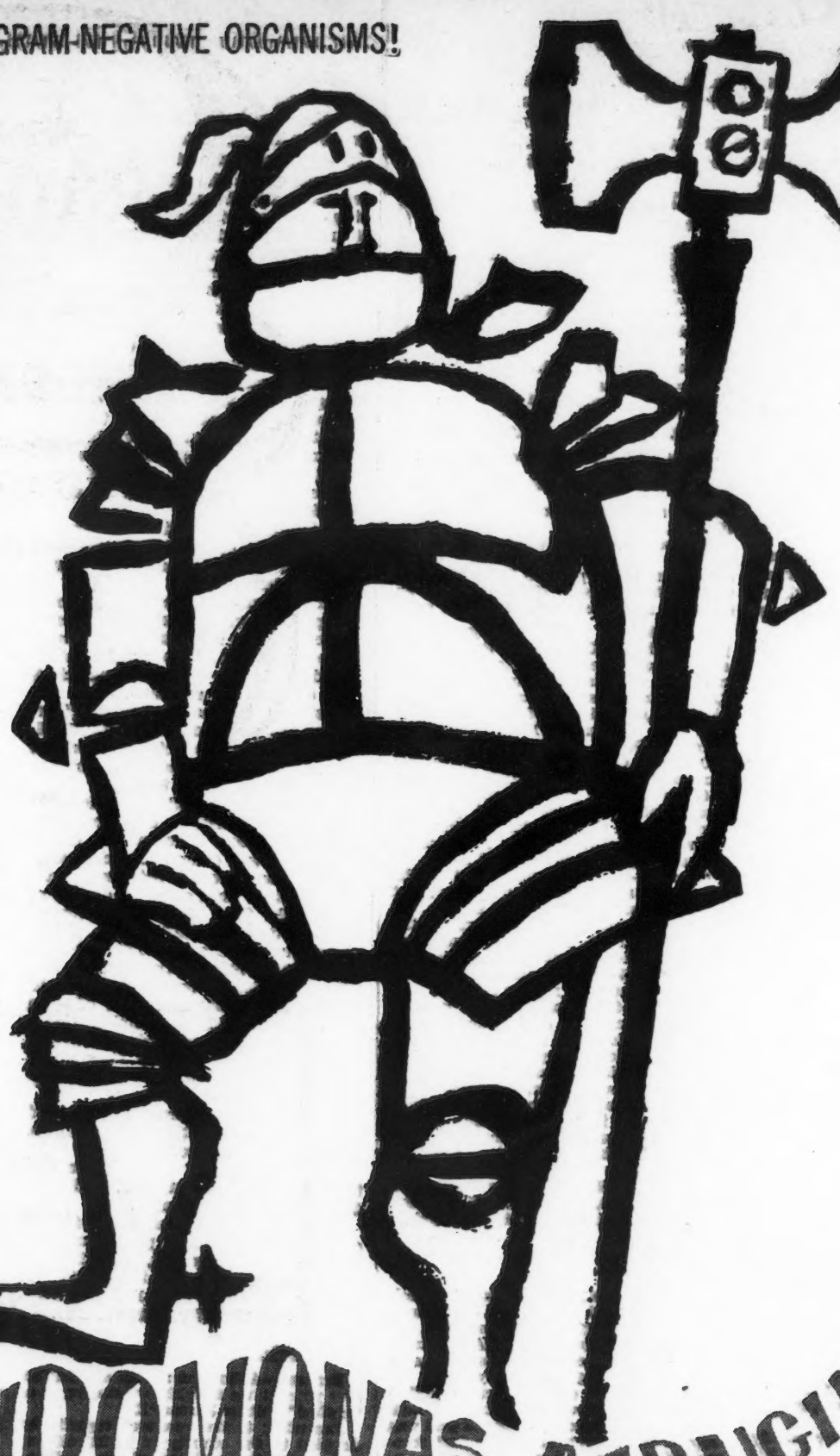
Paraffin wax business continues routinely. Long-standing price schedules, especially in the lower melting point grades, remain stable.

Paraffin producers are keeping a wary but calm eye out for plastics competition in a number of fields considered traditionally paraffin territory.

Attitude of wax makers for the present at least appears to be one of relative unconcern, however, in the face of plastics.

Pointing out that plastics processes still are more expensive than old and tested paraffin application, wax suppliers feel it will be a period of years before the plastics promise becomes a threat to paraffin in the packaging field.

A TRIUMPH OVER GRAM-NEGATIVE ORGANISMS!



EVEN THE DIFFICULT PSEUDOMONAS AERUGINOSA

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Drugs, Fine Chemicals

Price changes have become more and more frequent with the trend overwhelmingly downward. In the past six months, to cite a few examples, schedules have been cut once and often several times for camphor, cortisone and hydrocortisone, neomycin, niacin, ascorbic acid, penicillin, DHS and streptomycin, folic acid, thiamine, pyridoxine, and B_{12}. This last revision, perhaps, was the most significant, not only for the extent of the cut but, as a bold stroke against the foreign competition, an indication that hand-sitting and following importers' prices, resignedly, is out and a more aggressive, vigorous marketing climate in.

Not all changes have been downward, of course. Higher schedules have been posted of late for crude and resublimed iodine, some of the iodides and iodates, aspirin, phenothiazine, APAP, hyoscyamine, methylene blue, and the quinine salts.

Pricing patterns for still other chemicals have fluctuated; principally involved are such strictly imported items as theobromine, strychnine, brucine, and menthol, where the spot market generally reflects conditions at source.

In this category also are the botanicals, though divergent trends are noted here. For many of the large volume domestics, prices have headed steadily upward since early fall—when dealers and their customers learned that gatherings were smaller than usual—while prices on imported items have been well maintained, rising and falling a few cents only, depending upon the extent of stocks, demand, and new crop influences.

An increasingly realistic attitude toward pricing probably will prevail in months coming. As last year wore on, it seemed that more and more drug and fine chemical makers emerged from behind the "official schedule." This isn't to say, of course, that there isn't a hard core still back there.

n-Acetyl-p-Aminophenol — A producer recently boosted prices for APAP 6c. a pound. Established was this schedule: truckloads, $1.30 a pound; 1,000 to 5,000 pounds, $1.40 a pound; 100 to 250 pounds, $1.54 a pound.

Another maker quotes these prices: 1,000 pounds, $1.45 a pound; 200 pounds, $1.55 a pound; 100 pounds, $1.57 a pound.

There have been reports that supplies of APAP, now seasonally active, are tight.

Ascorbic Acid—Increased usage in foods and beverages—and perhaps the seemingly growing percentage of the population who feel that a few tablets daily ward off winter colds—will probably find output of vitamin C up appreciably in '60 from the '59 level. The trend has been indicated right along.

In the first seven months last year, output of the vitamin, at 2,515,276 pounds, was up 6 percent from '59 and, in the same period, exports were 465,045 pounds, up from 237,747.

Fifty percent of exports, imports in the January-July period last year were 230,341 pounds, valued at $782,855. Average price per pound: $3.40. This does not include the duty, however.

Biggest shippers of "C" to the US were Japan and Denmark, who together accounted for more than 90 percent of volume. Also on the roster: France, Australia, New Zealand, West Germany, Canada, and Switzerland.

Aspirin—Production of aspirin in October dropped below the September level, but seasonal influences probably explain the decline. In contrast with what was once the traditional pattern of a slow summer and a busy fall, recent years have found demand beginning in mid-summer and continuing strong through August and September. This means producers begin building inventories early. The exceptionally warm fall last year was also a probable factor in the reduced output in October.

Production in the first seven months of '60, totaling 13.7 million pounds, represented a 30 percent increase over the like period in 1959. At the same time, exports increased to 679,613 pounds from 668,440. Shipments went mainly to Chile, Colombia, Uruguay and Canada.

Proof of the excellent market potential for aspirin is the recent completion of a 25 percent expansion of facilities by the leading US manufacturer of bulk product.

Camphor—Taking the bull—in this case competition posed by lower-cost foreign goods—by the horns, the sole US producer of camphor last fortnight posted a price reduction of 5c. a pound for USP synthetic camphor powder. This was the second time in less than three months that the firm found it necessary to cut prices.

The earlier move, reported by OPD in October (10/24/60), dropped bulk prices 2c. a pound, tablet prices 5c. a pound. No reason was offered for the revision at the time, though reliable sources called it a play for markets invaded by import competition.

Accompanying the most recent action, however, was a statement as to purpose. Stiffly-worded, it may set the tone for other announcements of this type. But, in any event, it's a refreshing departure from the usual insipid type of press release that refuses to call a spade a spade.

The US camphor producer said: "Foreign producers seem determined to dominate the industry. There is every indication that supplies are being dumped on this market for the purpose of upsetting domestic production."

Under the new schedule on domestic material, USP camphor powder is quoted at 52c. a pound for ton lots, at 53c. a pound for 1,000 pounds, and at 54c. a pound for lesser quantities.

Also reduced, technical material now lists at 45c. a pound, 3c. below the former schedule.

Gelatin—Going into December, gelatin producers held stocks totaling 11,955,000 pounds. This compared with 11,095,000 pounds a month earlier and 11,613,000 a year earlier.

Responsible for the rise in inventory were lower shipments in face of a slight increase in production. Of the several grades, only output of photographic type was below the October level. Shipments of both edible and photographic grades, however, were down.

Gelatin production in November amounted to 5,167,000 pounds, up from 5,044,000 in October and 4,947,000 in November 1959. Of the total, 4,576,000 pounds were manufactured from hides

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Jan. 8, 1960
59.27	59.27	59.27	60.22

For Current Prices see page 9

Drugs and Fine Chemicals Output: October

Following statistics for selected fine chemicals and drugs were compiled by the Tariff Commission. Figures relate to the production of bulk material only.

		October	September
Acetylsalicylic acid	lbs.	1,666,782	1,733,430
Ascorbic acid and salts	lbs.	569,578	450,843
Dihydrostreptomycin	gms.	—	5,061,653
Niacin and amide	lbs.	181,936	169,035
Penicillin salts	million-units	38,031,833	38,637,214
Phenobarbital	lbs.	32,849	—
Pyridoxine	lbs.	—	6,675
Streptomycin	gms.	20,692,581	25,115,872
Sulfa drugs	lbs.	477,264	413,654
Tetracycline	gms.	—	13,266,801
Thiamin derivatives	lbs.	—	31,871

A dash (—) indicates data not reported.

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Drugs, Fine Chemicals

while the remainder (591,000) was osseinderived.

Classified by type, output was, in thousands of pounds: edible 3,722; technical 272; pharmaceutical 352; and photographic 821.

Shipments of gelatin in November dropped to 4,307,000 pounds from 4,671,000 the month before and 4,808,000 in November 1959. By type, shipments were, in thousands of pounds: edible 3,164; technical 206; pharmaceutical 256; and photographic 681.

Stocks at November's end, totaling 11,955,000 pounds, were comprised of (in thousands of pounds): edible 6,532; technical 900; pharmaceutical 1,219; and photographic 3,304.

This report is based on statistics furnished the Bureau of Census by all known manufacturers of gelatin.

Streptomycin—Prices for streptomycin and dihydrostreptomycin have been stable over the past few weeks at a range of $30 to $32 a kilo. How long this situation will last is anybody's guess, although some trade people feel that prices have bottomed out at last.

Reduced demand for DHS—strep taking up the slack—may be the trend during the coming year. Veterinary usage, the bigger market, will continue, however, according to the current outlook.

Business & Defense Services Administration, an arm of the Commerce department, says output of DHS in 1960 remained at about the 1959 level. Exports, though, were down from 68.2 million grams in 1959 to 49.8 in the first 7 months of '60; India purchased most of this material (20.5 million grams).

Streptomycin production statistics are not publishable owing to possible disclosure of individual company operations, but, according to BDSA, output in 1960 ran considerably ahead of 1959.

Exports of strep totaled 33.5 million grams in the first 7 months of the year, shipments to India accounting for 20.4 million grams.

Thiamine—Under the influence of lower-cost foreign material, the market here for thiamine continues weak. Were it otherwise, it would amount to news; as it is, it's an old story.

But while prices may be lower, producers may be selling larger amounts. This is indicated by the upturn in production last year. Final figures, of course, aren't in yet, but, according to government sources, output in the first half of '60, at 153,843 pounds, represented an increase of 39 percent over the 1959 level. This is really going some.

Exports and imports are pretty much in balance, as seen from these figures. January-July imports were 33,734 pounds, while exports were 32,747.

Botanicals

Markets are strong reportedly for senega root, Roman chamomile, psyllium seed black, and ipecac root and powder. Stability generally prevails in other areas.

Agar—Although there were hopes earlier that a new Kobe crop would substantially reduce the current spot price once it started coming in here, there's little likelihood of this happening. Dealers in the New York area last week noted that shipping prices are little changed — although the crop is better—meaning that they're booking advance business at today's high prices.

Chamomile—Roman flowers are selling here at a range of $1.50 to $1.75 a pound. Demand is good, one reason being that there won't be any more arrivals until next fall and in the interim prices will likely go up.

Ipecac—Ipecac root, available and in good demand, is commanding anywhere from $7.50 to $8 a pound. The powder is selling at $9 to $9.50.

Peppermint Leaves—There's not much trade in domestic peppermint, but imported stuff is going well at slightly higher prices. As seen by dealers here last week, the quote is 85c. to 90c. a pound, about 5c. higher than that previously asked.

Psyllium—Quotes on the husks and blonde seed are unchanged but the black is higher, at 38c. to 40c. a pound. Replacement costs are reported up.

Essential Oils Set

—Continued from page 7

more selective and is weary of buying the same old things.

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Officer Slate Presented

The nominating meeting presented a slate, which is tantamount to election, containing the following choices:

President, Mr. Horsey, who is sales vice-president of Givaudan-Delawanna, Inc.; first vice-president, R. E. Felton, of Felton Chemical Company; second vice-president, F. F. Dittrich, of Ungerer & Co., and secretary-treasurer, E. Manheimer, of J. Manheimer.

Named for the executive committee were: V. G. Fourman, Syntomatic Corporation; F. K. Goudsmit, van Ameringen-Haebler Division of International Flavors & Fragrances, Inc.; G. Keller, Schimmel & Co.; A. H. Moeller, Noville Essential Oil Company, and B. Polak, Polak's Frutal Works, Inc.

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Chemical Men Sound Alarm on Tariff Cuts

—Continued from page 3

many more in the laboratory stage and an untold number yet to be discovered.

A reduction in the existing 12½ percent ad valorem duty on products coming within these paragraphs, it was stated, will further threaten or cause serious injury to Lederle's business.

The concern pointed out that it is currently spending in excess of $14 million a year for research. It estimated that the total cost to date of its work on products that have not turned out successfully is approximately $37 million.

A further reduction in tariffs that would enable foreign suppliers to cut further into the market for Lederle products, it contended, "could force a reduction of expenditures, including those for research which is the very lifeblood of our industry."

Salt Company Eyes Foreign Fields

A warning that it may be forced to transfer its salt production and investments abroad if tariffs are further reduced came from International Salt Company with operating mines in Louisiana, Michigan and New York.

Joining in the protest against any reduction duties on sodium chloride were Cayuga Salt Company, Myers, N. Y., and the Carey Salts Company, Hutchinson, Kan.

Morton Salt Company, Chicago, with extensive foreign operations, also urged that the present tariff of 1.7 cents per 100 pounds on bulk salt be not changed.

International told the Tariff Commission that salt can be produced in foreign countries and delivered to US ports at less than domestic producers' transportation cost to the same port.

The present duty on bulk salt is wholly inadequate to balance the cost of production and cost of ocean freight, it was claimed, and if the present duty is reduced there will be no new investments made in salt facilities in this country.

Attacks were also made before the commission on the proposal to include oxalic acid, ammonium phosphate and pentaerythritol on the bargaining list.

Protestants were Victor Chemical Works, division of Stauffer Chemical Company, Chicago; Delaware Chemicals, Inc., Wilmington, Del., and Trojan Powder Company Company, Allentown, Pa.

Victor Chemical protested the moves on oxalic acid and ammonium phosphate, warning that existing duties on these products are already so low that they are no longer any deterrent to imports.

Oxalic acid is currently dutiable at 4½ cents a pound and the duty on ammonium phosphate "not for fertilizer use" is ¾ cent a pound.

Foreign Differential Ignored

The company's brief stated that the existing duty on oxalic acid fails to cover the differential already existing between US and German costs of production by a wide margin and while imports have not been large, they are a threat to stability in the market.

Introduction of the imported material in any quantity at a lower price may force one or more of the three producers who are not recovering oxalic acid as a by-product to withdraw from the market, it maintained.

The company painted a similar picture with reference to ammonium phosphate. It noted that ease of manufacture of this product has resulted in a number of large consumers in various markets going into production of the chemical for their own use.

This situation acts as a regulator on the ammonium phosphate market in terms of both volume and price, it was stated.

Any further imports of low-cost ammonium phosphate can only result in further cut-backs in domestic production until possibly the necessary break-even point in production levels cannot be reached, it was added.

Delaware Chemicals, a comparative newcomer—having been in business for only thirteen years—doubted whether it could stand the competition of increased imports of pentaerythritol in the face of the competition it already must experience from such formidable concerns as Hercules Powder Company and Heyden Newport Chemical Corporation, New York.

Trojan Powder, which emphasized that it is properly classified as small business, warned that it too will be facing insurmountable difficulties in continuing production of pentaerythritol if the duty is lowered. It advised the commission that new competition from abroad already is on the scene.

During the last thirty days, it was stated, Trojan was notified by two of its largest customers on the Pacific Coast that pentaerythritol of Japanese manufacture is being offered and delivered to customers' Pacific Coast plants at 4 cents a pound under the current domestic price.

Cowles Fills Key Posts In Laundry Products Dep't

Cowles Chemical Company, Cleveland, Ohio, has appointed Raymond G. Johnson manager of its laundry products department. He succeeds William J. Schleicher who has been made general sales manager of the company (see picture story on page 3).

John H. Osborne has been named field sales manager of the Cowles laundry products department. He was formerly sales manager of Whitehouse Products Company of Brooklyn, N. Y.

Chemical $ for 'Lending'

—Continued from page 4

cording to Arnold Schoen, president of Wheels, Inc.

"The greater variety of lease plans made available to fleet operators this year has increased the popularity of fleet leasing," Mr. Schoen said.

"The new plans permit companies to lease the vehicles they need without including maintenance, repairs, and garage service. This makes leasing costs lower and enables companies to make use of existing facilities, instead of scrapping them."

The number of autos and trucks leased by the different industries, plus their combined dollar value, is as follows:

Industry	Leased Autos (in fleets)	Leased Trucks (in fleets)	Value (millions)
Ceramics & glass	3,500	800	$10.2
Chemicals (industrial)	14,500	3,300	46.1
Cosmetics	5,600	1,800	19.4
Drugs	21,000	2,200	59.1
Fertilizers	5,500	800	16.1
Paint	9,000	1,800	27.9
Petroleum	8,000	1,800	25.4
Plastics	3,000	1,200	11.1
Rubber	3,800	1,200	13.1

Robert Sheridan, president of Nationwide Leasing, said in a year-end statement that equipment leased by all industry last year totaled $530 million. This was the first time leasing topped the half-billion mark. He predicted that leasing volume would reach $1 billion a year by 1962.

Dollar volume of leasing by industry, Mr. Sheridan said, was as follows, in millions:

Industrial chemicals	$28.9
Drugs	15.4
Paint	6.7
Paper	19.3
Rubber	9.2
Ceramics & glass	5.5
Petroleum	38.7
Plastics	5.2

Mr. Sheridan said there were four major reasons for the rapid growth of equipment leasing in the chemical process industries: (1) increased popularity of sale-leaseback transactions involving existing plant, (2) more equipment manufacturers have introduced lease plans for their products, (3) money remains tight, as evidenced by a 13 percent decline in corporate liquidity in the industry during the year, and (4) greater use of the open-end "master lease" under which companies can expand their leasing steadily, as the need for additional equipment arises.

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Jobs & People

Abbott Laboratories, North Chicago, Ill.—Three district managers have been appointed: **Milton J. Henrichas** for parts of Illinois and Iowa; **H. Bruce Hunter** for a district in Ontario, Canada; **Harry J. Kohl** for a district in Minnesota. **William E. McGlone** has been elevated to branch supervisor in Los Angeles.

American Potash & Chemical Corporation, Los Angeles—**Dr. Richard G. Ischinger** has joined the company as head of the Whittier Laboratory pilot plant section.

Borden Chemical Company, New York, a division of Borden Company —**Joseph M. Saggese** has been named assistant manager of casein department, responsible for imported casein and other special commodities.

Chemetron Corporation, Chicago —**J. E. Counihan** has been appointed sales manager of Charles J. Weigel, Inc., and will continue as sales manager of Holland Color & Chemical Company. Both firms are Chemetron subsidiaries.

Food Machinery & Chemical Corporation, New York—**Charles F. Ferraro** has been elevated to supervisor of the polymer evaluation section of the organic and polymer department at the Princeton, N. J., research and development center.

General Aniline & Film Corporation, New York—**Dr. Charles F. Jelinek** has been named manager of the Easton, Pa., central research laboratory of the newly-created research and commercial development department.

General Electric Company, Waterford, N. Y.—**Bryce I. MacDonald, jr.,** has been named manager of manufacturing engineering in the silicone products department. He succeeds **Dr. E. M. Koeritz** who has been made manager of manufacturing in the metallurgical products department.

Johnson & Johnson, New Brunswick, N. J.—**Robert L. Fuller** has been named assistant controller.

Ketchum & Co., New York — **Frank Friedman** has been appointed New York sales manager.

Eli Lilly & Co., Indianapolis, Ind. —**Ian H. Small,** formerly assistant director of the marketing and production services division, has been elevated to associate director.

National Aniline Division, Allied Chemical Corporation, New York— **Harold L. Rieg** has been appointed acting resident manager of the Chicago sales branch.

Organon, Inc., West Orange, N. J. —Two sales representatives have been appointed to executive positions. **John B. Ellis** has been named sales manager of the south Atlantic region, and **Dick Kuschinsky** director of professional services.

Parke, Davis & Co., Detroit, Mich. —**Dr. H. E. Machamer** has been appointed assistant director of microbiological research. **Miss Mary E. Sheehan** has been named a research chemist.

Strong Cobb Arner, Inc., Cleveland, Ohio—**Robert H. Hoh,** previously western regional sales manager has been transferred to that post in the central region.

Sun Oil Company, Philadelphia — **Elmer R. Bradley** has been named sales manager of automotive products, and **Marcus A. Markley** will take charge of industrial, wholesale, fuel oil and foreign sales, and the sales of liquefied petroleum gases.

Texaco, Inc., New York—**Erryn King,** vice-president and assistant to the chairman of the board of directors of Texaco, has been named chairman of the petroleum committee of the United Hospital Fund Campaign. He will lead a funds campaign among executives in the petroleum industry.

Chemical Industry

—Continued from page 5

and seek to use the fee system as a primary source of revenue.

Also in the works are legislative moves in about eighteen states for enactment of laws comparable to the law enacted by the federal congress that placed defoliants, plant growth regulators, nematocides and desiccants under the pesticide registration law.

Drug manufacturers will be dividing their attention equally between the federal and the states governments this year. A legislative program of major importance to the industry is due before the federal congress in the form of bills sponsored by the Food & Drug Administration and the Kefauver investigating committee. At the state level the problems are nearly as great.

Minor Investigations Threatened

There are a number of "little" Kefauver-type investigations of drug prices either planned or being threatened in the state legislatures, it is reported.

State lawmakers—taking their cue from last year's charges by Sen. Estes Kefauver of Tennessee—are complaining about the prices of drugs purchased for welfare use.

Pharmaceutical Manufacturers' Association is anticipating that there will also be a rash of bills to encourage the use of generic names, rather than brand names by physicians in prescribing for their patients.

PMA also expect renewed efforts to be made in Wisconsin and California to pass legislation that would require the registration and licensing of detail men of drug companies.

A number of the states will be modifying their narcotic laws to make them conform to the new federal narcotic law which became effective January 1.

PMA plans to stimulate this action so that the industry will not be burdened by the problems of differing requirements at state and at federal levels.

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Oils, Fats and Waxes

Feature of the oils and fats market last week was the strength and sharp price gains for soybeans, which was reflected in edible vegetable oils. Soybean oil advanced 3/8 cent, cottonseed oil, 3/8 cent to 1/2 cent, while corn oil declined 1/2 cent and peanut oil remained unchanged. Active export demand for cottonseed and soybean oils also for refiners account was reported last week. Early advances in crude coconut oil were not sustained, the market declined 1/4 cent between sales. Coconut oil fatty acids declined 2 cents per pound because of recent decline of the oil. Copra also stiffened and was raised $10 per ton for nearby shipment with bids at $5 less. Olive oil continued strong for shipment from Spain because of active demand from Italy and Greece. The strength in replacements kept the spot market firm.

Improved demand for tallow and greases, combined with scanty offers made for a strong market. Sellers were holding for 1/8 cent to 1/4 cent more. Export business also was more active. Cash lard was firmer and fractionally higher.

While consumers showed more interest in industrial oils, business continued restricted to immediate needs. Linseed oil was quiet and steady. Tung oil was unchanged, with prices covering a wide range, depending upon seller. Brazilian castor oil was inactive and offered quite freely. Recent cut in oiticica oil prices brought increased buying interest at the lower level. Crude menhaden oil was unchanged and firmly held. Spotty demand continued for rapeseed oil at unchanged prices.

Oilmeals were firmer. Soybean meal advanced $1.50 per ton. Linseed meal also was up $1, while cottonseed meal was raised $2 and peanut meal 50 cents per ton.

Price Trends

Advanced

Coconut oil, crude, Pac. coast, 1/4c. per lb.
Copra, $10 per ton.
Cottonseed meal, $2 per ton.
Cottonseed oil, crude, 3/8c. to 1/2c. per lb.
Refd., 3/8c. per lb.
Lard, cash, 2/5c. per lb.
Linseed meal, extracted, $1 per ton.
Peanut meal, 50c. per ton.
Soybean meal, $1.50 per ton.
Soybean oil, crude, 1/4c.-3/8c. per lb.
Refd., 1/4c. per lb.

Reduced

Cocoa butter, 3c. per lb.
Coconut fatty acid, 2c. per lb.
Corn oil, crude, 1/2c. per lb.
Refd., 1/2c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Jan. 8, 1960
106.33	105.09	105.10	122.93

For Current Prices see page 9

Vegetable Oils

Castor—Trading was spotty. Domestic grades were held at former levels. No. 1 Brazilian was available at 18c. per pound, tankcars, New York, prompt delivery.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:

	Pounds—Castor Beans	Castor Oil
Last week	.....	500,000
Previous week	.....	1,326,000
Corresponding week, 1960	.....	800,000
Total this year	.....	1,826,000
Corresponding period, 1960	.....	3,286,000

Coconut—Crude shipments were irregular with trading at 11 3/8c. per pound, tankcars, f.o.b. Pacific coast after sales at 1/4c. more. Tankcars were lower at 13 1/4c., New York, for prompt delivery.

Corn—Crude was easy and sharply lower. Sales took place at 15c. per pound, tankcars, f.o.b. mills, prompt shipment. Refined oil was lower at 18 3/4c. tankcars, New York basis, prompt delivery.

Cottonseed—Futures were stronger on the New York Produce Exchange last week, reflecting higher soybean futures and active demand for crude oil for refiners account, and export especially in Texas. This caused the crude oil market to advance 1/2c. to 10 1/2c. per pound, tankcars, f.o.b.

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, January 6, follow:

	Sales	High	Low	Close
		Cents per Pound		
Jan.	5	12.60	12.30	12.59@12.70
March	321	12.75	12.39	12.70S
May	580	12.88	12.54	12.80@12.82
July	268	12.96	12.59	12.87S
Sept.	15	12.76	12.45	12.65 Bid
Oct.	9	12.60	12.32	12.25S
Dec.	2	12.40	12.30	12.33@12.43

Total sales and switches, 1,200 contracts.

Oils and Fats: November

Following statistics are compiled by the Bureau of Census covering oils and fats production, consumption and factory and warehouse stocks in November, 1960 (in millions of pounds).

	Cottonseed Oil	Soybean Oil	Corn Oil	Peanut Oil	Lard	Edible Tallow
Production:						
Crude oils	251.7	401.1	26.8	[1]7.8	[1]203.0	30.7
Refined oils (once-refined)[2]	176.7	279.5	25.1	5.5	xxx	xxx
Consumption in refining[2]	189.5	290.0	27.4	6.0	xxx	xxx
Consumption in selected edible and inedible products, total[3]	112.2	263.5	29.2	3.8	42.6	28.3
Consumption in edible products, total	111.7	246.2	29.0	3.4	41.1	27.5
Stocks, end of month, total[3]	391.7	446.0	33.4	10.8	83.4	24.8
Crude oils	162.9	294.7	18.9	6.7	xxx	xxx
Refined oils	228.8	151.3	14.5	4.1	xxx	xxx

Note: Total consumption of oils in each product may exceed sum of detail since only major edible oils are shown separately.
D—Withheld to avoid disclosing figures for individual companies.
[1] Source: U. S. Department of Agriculture. Lard production represents quantities rendered.
[2] Production of refined oils covers only once-refined oil. Degummed soybean oil is reported as crude oil.
[3] Includes hydrogenated fats (vegetable and animal) and other fats and oils "in process" (e.g. refined cottonseed includes stocks of stearin).

	Coconut Oil	Linseed Oil	Inedible Tallow & Grease	Tall Oil	Vegetable Foots
Production:					
Crude	44.8	[1]38.6	[2]257.8	61.5	24.1
Refined (once-refined)[2]	35.4	(NA)	xxx	[3]9.8	xxx
Consumed in refining[3]	37.9	16.5	xxx	[4](D)	xxx
Consumption in selected edible and inedible products, total[4]	[5]48.0	25.8	151.8	67.3	9.9
Consumption in inedible products, total	36.2	25.8	151.8	67.3	9.9
Stocks[4]	[6]328.5	92.9	330.8	96.1	35.5
Crude oils	[6]310.8	[6]59.5	xxx	80.9	xxx
Refined oils	[6]17.7	[7]33.4	xxx	15.2	xxx

[r] Revised.
D—Withheld to avoid disclosing figures for individual companies.
NA—Not available.
[1] Raw linseed only.
[2] Quantities rendered.
[3] Production of refined covers only once-refined oils.
[4] Includes hydrogenated fats (vegetable and animal) and other fats and oils "in process." Stocks of palm, crude castor and sperm oil are on a commercial stocks basis; and do not include stockpile of strategic oils.
[5] Includes following amounts consumed as crude in November and October, respectively, 16.1 and 17.0.
[6] Includes raw and boiled linseed oil.
[7] Includes linseed oil other than raw and boiled.
[8] The use of whole or crude tall oil in the distillation or fractionation process is reported as consumed in "Fatty Acids"; the use in the acid refining process is reported as consumed in "Refining." The production of refined tall oil includes the output of acid refined tall oil and distilled tall oil (containing less than 90% free fatty acids not including rosin acids).
[9] Includes General Services Administration stocks which are no longer required for the strategic stockpile. Months prior to April, 1960, stocks were on a commercial basis only.

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Oils, Fats and Waxes

all Texas points and to 10½c. to 10¾c. in the southeast and Valley. Trading in futures was quite active, the market advanced fractionally and scored new high for May, July and September deliveries. Refined salad oil also was higher and raised to 14¼c. per pound, tankcars, New York basis, prompt delivery.

Oiticica—Trading was spotty. Crude was sold at 12¾c. per pound, tankcars, New York, prompt delivery. Drums were named at 14¼c. to 14¾c., spot, depending upon quantity.

Olive—Firm tone prevailed in this market because of the active demand for Spanish oil from Italy and Greece. Prompt shipments were maintained at $53 to $55 per 100 kilos, drums, f.o.b. Spanish ports. Tunisia was not offering for shipment. Higher cost of soybean oil laid down in Spain has narrowed the price margin between soybean and olive oil resulting in increased use of the latter by the domestic trade. The local market was firm with sales from $2.35 to $2.40 per gallon, drums, spot, duty paid, exwarehouse according to quantity. Stocks on spot were reported light.

Peanut—Crude was unchanged with sales at 13c. per pound, tankcars, f.o.b. mills. Refined was held at 16c., tankcars, New York basis, prompt delivery.

Soybean—Market was stronger, reflecting the sharp advance in beans. Export trading was active. Crude was higher and closed at 10¼c. per pound, tankcars, Refined oil was stronger and advanced to 12.45c., tankcars, New York basis, prompt delivery.

Tung—Buying interest was confined to prompt needs. Market was unchanged and steady. Tankcars ranged from 22c. to 22¼c. per pound, New York, prompt delivery, depending upon seller. Drums ranged from 24c. to 24½c. per pound, spot, as to quantity. Domestic oil was unchanged at 22c., tankcars, f.o.b. mills, prompt shipment.

The government sold 600,000 pounds of tung oil at 16.772c. and 16.922c. per pound, bulk, f.o.b. Marrero, La., last week for export.

Miscellaneous

Cocoa Butter—Market was sharply lower, declining to 57c. to 62c. per pound, spot, according to quantity.

Copra—Shipments were stronger and advanced to $160 per ton, c.i.f. Pacific coast, prompt and $155 bid.

Fats and Greases

Greases—Firmer tone prevailed due improved demand. Offers continued tight with sellers holding for ⅛c. higher. Choice white ranged from 8⅝c. to 8¾c. per pound, tankcars, delivered and yellow, 5¼c. to 5⅜c., same basis.

Lard—Market was stronger and cash lard was advanced to 10.60c. per pound, drums, Chicago.

Tallow—Improved trading and scanty offerings stiffened this market. Business was reported fairly active with sellers holding for ⅛c. to ¼c. more. Bleachable fancy ranged from 6⅛c. to 6¼c. per pound, tankcars, delivered; prime, 5⅞c. to 6c.; special, 5⅝c. to 5¾c.; guaranteed fancy, 6½c. to 6⅝c.; and No. 1, 5¼c. to 5⅜c., same basis. Export business was also better. Guaranteed fancy was quoted at 6⅝c. to 6¾c. per pound, bulk and 1c. more for drums, f.a.s.

Cake and Meal

Cottonseed Meal—Market was firmer, reflecting the strength of soybean meal. Trading was moderate. Stocks were ample to cover current demand. Meal 41 percent was raised to $56.50 per ton sacked, Mississippi Valley; $57 Alabama and $60 to $61, Georgia-Carolina area.

Linseed Meal—Strength again predominated in this market, prices up $1 per ton. Supplies for nearby delivery were scarce and most crushers were not offering beyond January because of uncertainty as to late winter operations. Withdrawals against old contracts were active. Extracted meal, 34 percent protein, was held at $54 a ton for January. Old process expeller meal was firm at $59.50, January-March.

Peanut Meal—Stocks were more liberal due to increased production. Trading continued spotty. Old process was quoted at $55.50 per ton sacked and solvent, $52.50 per ton at Alabama-Georgia points.

Soybean Meal—This market turned again to strength after shortlived dip in preceding week. Spectacular advances in soybeans futures on drought news out of China as well as the unsettled international situation sparked the stronger tone. Demand from formula feed manufacturers was good to excellent, some spottiness developing. Anticipated export sales provided additional bullish influence. Unrestricted meal advanced $1.50 per ton, other markets up $1 to $1.50. Meal, 44 percent was quoted $55.50 a ton, unrestricted, bulk, Decatur, for prompt delivery.

Waxes, Vegetable

Consumers increased demand for carnauba wax for spot delivery and also absorbed delivery against recently placed contracts. Steady tone prevailed throughout the market. No. 3 North country Ceara was maintained at 68c. to 70c. per pound, spot, as to quantity and Parnahyba, 2c. higher. Other grades of carnauba also moved in better volume at unchanged quotations.

Crude beeswax continued in scanty supply, especially bleachable grades. Offers for shipment were scarce. Refined grades were unchanged and steady, reflecting the strength of crude.

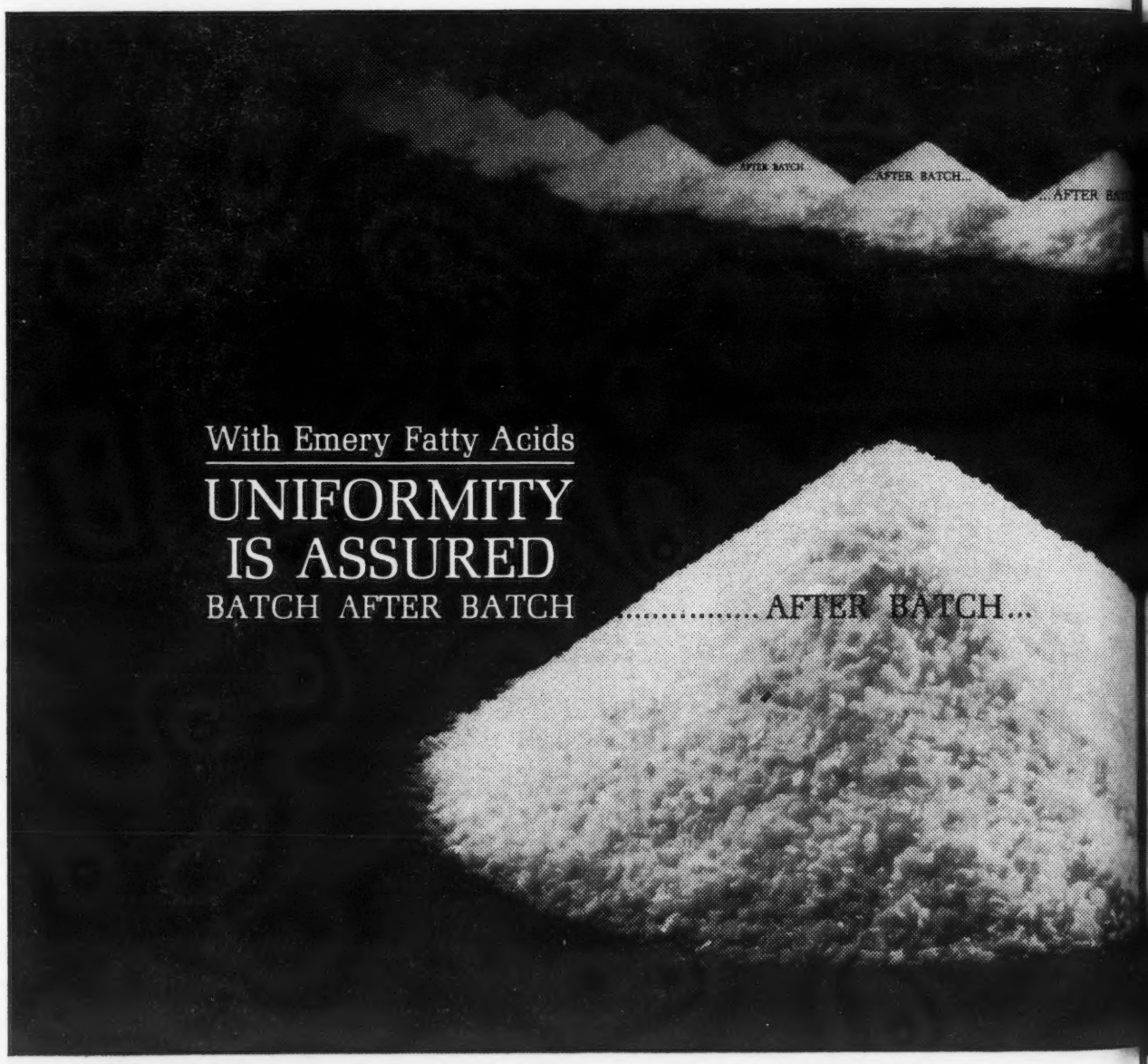
Oils and Fats: November

(*Continued from table on previous page*)

(Millions of Pounds)

	Castor Oil	Tung Oil	Palm Oil	Palm Kernel Oil	Fish Oil Incl. Mammal Oil Other Than Sperm	Sperm Oil
Production:						
Crude	(D)	1.5	xxx	...	[1]8.5	[1]...
Refined (once-refined)[2]	xxx	xxx	xxx	4.8	xxx	xxx
Consumed in refining[2]	xxx	xxx	5.5	xxx	xxx	xxx
Consumption in selected edible and inedible products, total[3]	8.9	2.9	2.9	5.5	4.5	3.6
Consumption in edible products	(D)	...	(D)	4.5	...	...
Consumption in inedible products	(D)	2.9	(D)	1.0	4.5	3.6
Paint and varnish	1.4	2.1	...	...	(D)	...
Fatty acids	0.3	...	(D)	(D)	(D)	...
Resins and plastics	3.8	0.4	...	...	(D)	...
Lubricants and similar oils	0.5	...	(D)	...	0.3	1.4
Soap	(D)	...	(D)	(D)	...	...
Other inedible products	2.9	0.4	1.8	...	0.8	2.2
Stocks (crude and refined)[3]	23.9	32.3	23.6	19.2	51.6	35.1

* Revised.
D—Withheld to avoid disclosing figures for individual companies.
[1] Source: Fish and Wildlife Service, U. S. Dept. of Interior.
[2] Production of refined, covers once-refined oils.
[3] Includes hydrogenated fats and other fats and oils "in process." Stocks of palm, crude castor and sperm oil are on a commercial basis; and do not include stockpile of strategic oils.



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Mineral Output for 1960 Is the Second Best Recorded

CHEMICAL SPECIALTIES MGR.: Laurence G. Mayne, named manager of the chemical specialty department for the Ionac Chemical Company, Birmingham, N.J.

—Continued from page 7

only partly offset by increased demand for chemical and fertilizer materials. The result was a 2 percent drop in total worth of nonmetals other than fuels. Interest continued in the semiconductor materials —silicon, germanium, and tellurium— although production and consumption of selenium dropped sharply.

A rundown of production trends in some of the chemically-important minerals follows:

Barite output dropped an estimated 19 percent, reflecting decreased activity in oil-well drilling.

Sales of boron minerals and compounds in 1960 dropped slightly in quantity although their value increased. The decrease probably was due to the general decline in consumer demand for durable goods. However, the decline in demand for durable goods was offset to some degree by increased demand for glass fibers for use in reinforced resins.

Sales of bromine and bromine compounds during 1960 decreased 10 percent. The smaller sales probably were attributable to several factors, such as the large stocks of motor fuel produced in previous years, the effect of the compact car and its lower gasoline consumption, the decrease in the general demand for tetraethyl lead-ethylene dibromide antiknock mixture; and the lower demand for aviation gasoline because of jet motors. Despite the decrease in sales of bromine, production capacity increased in 1960.

Feldspar production dropped a little below the 1959 tonnage. Imports of nepheline syenite, the principal substitute for feldspar, continued at the same high level. Aplite output decreased 5 percent.

Fluorspar Gained, Declined

Domestic fluorspar increased to about 241,000 tons, a 30 percent gain, whereas imports declined about 6 percent. Industrial requirements in the aluminum industry were almost unchanged, but rose significantly in the steel and chemical industries in 1960.

Output of gypsum, which is reflected in the building and construction industries, was about 10 percent smaller. Gypsum imports in 1960 were expected to be about 12 percent lower.

Domestic production of iodine decreased about 8 percent. Consumption of crude was expected to be smaller. United States imports of crude iodine increased substantially in 1960; chiefly because of a rise in the price of domestic crude.

The drop in sales of mica to the government under the domestic purchase program was largely responsible for the substantial decrease in domestic sheet mica output. Scrap mica production declined moderately.

Production of both phosphate rock and potash increased 10 percent, due to continued high demand for fertilizers.

Salt manufacture continued to expand in 1960, establishing new marks. A new mine in Ohio and brine wells in North Dakota contributed to the increase.

Production of sodium carbonate and sodium sulfate from natural sources advanced 10 and 6 percent, respectively, surpassing the previous records in 1959. A new plant to produce soda ash from Wyoming trona was started.

Frasch Sulfur Output Steady

The output of Frasch sulfur was at the same level as 1959; but prices were lower.

Talc, soapstone, and pyrophyllite—minerals that find their greatest use in ceramics, paints, insecticides, rubber, and roofing—increased approximately 3 percent, both in quantity and value.

World production of asbestos was estimated as slightly higher in 1960 due to small increases in Canadian and Russian output. United States production was up about 2 percent, but imports decreased to 690,000 tons.

Production of primary magnesium in 1960 was 40,000 tons, an increase of 9,000 tons. Three plants, with total annual capacity of 47,000 tons, were operated throughout the year. Producers' shipments of 52,000 tons were 4,000 tons above 1959.

Approximately 239,000 tons of magnesium chloride and calcined dolomite were used in 1960 to produce magnesium.

Output of 5 million tons of magnesite and dolomite for basic refractories represented an increase of about 20 percent over 1959. Early in 1960, Kaiser Industries, Inc., started producing magnesia and periclase at its new plant at Midland, Mich. During the latter half of the year, E. J. Lavino & Co. began running a new plant at Freeport, Tex., to produce periclase.

Domestic Antimony Stronger

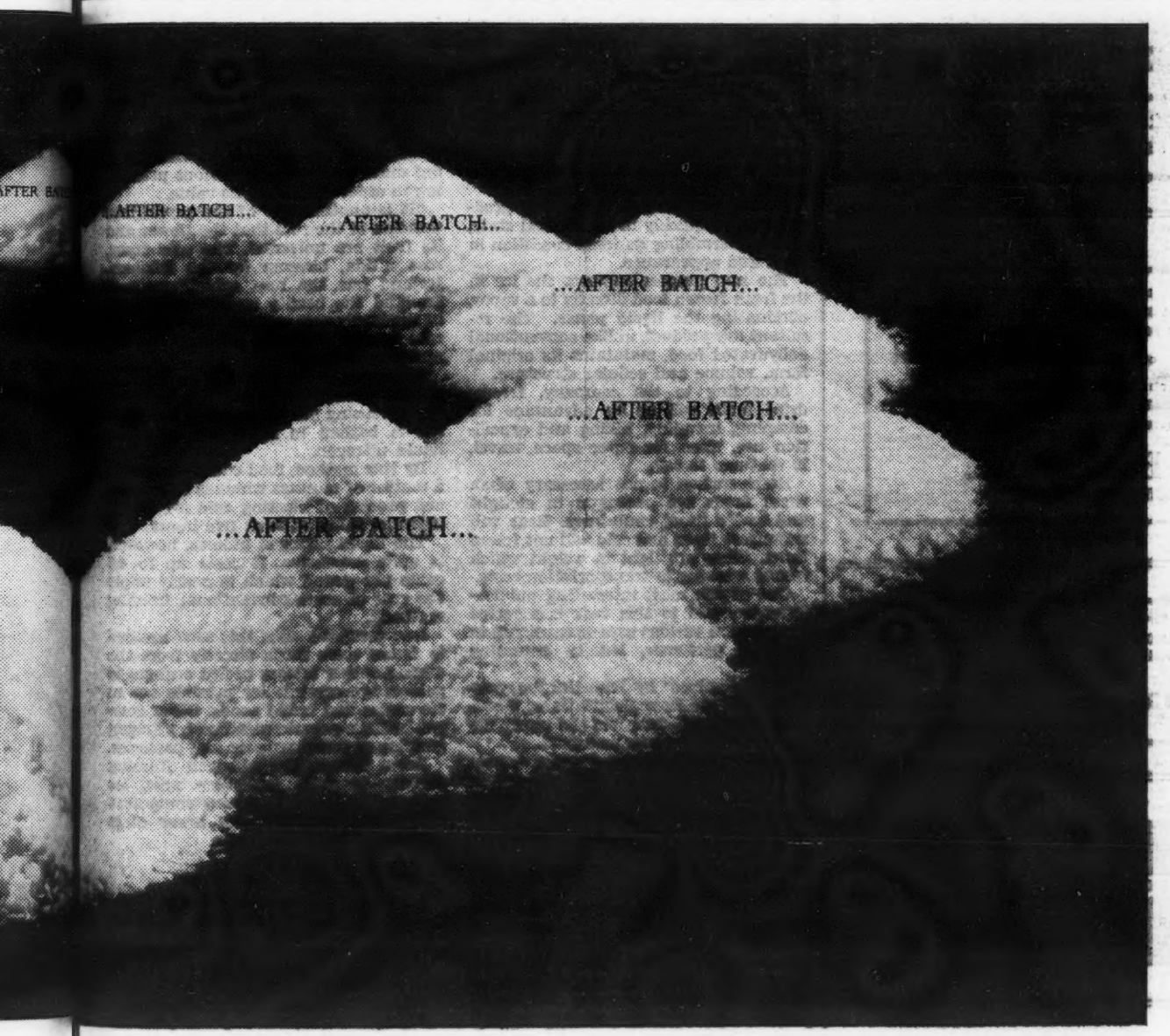
The domestic antimony industry in 1960 was characterized by a rise in primary and secondary smelter production and in imports, exports, and stocks. Mine production and consumption of primary metal dropped slightly.

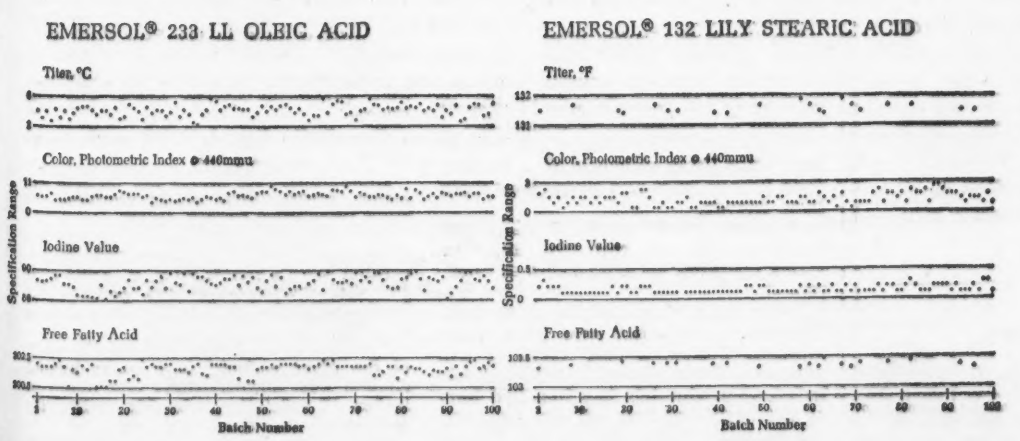
Mine production of antimony was 650 short tons, compared with 678 tons in 1959, and was recovered as impure cathode metal as a byproduct in the refining of silver-lead ores.

Domestic mine production of mercury was little changed. Increased output in Alaska, California, and Nevada more than offset decreases in Idaho and Oregon, and national output totaled 31,500 flasks.

Industrial consumption probably dropped below 50,000 flasks for the first time since 1954. General imports continued the downward trend that had begun in 1957.

Mercury prices were fairly stable throughout 1960, although lower than other recent years, and averaged $210.75 a flask—about $17 less than for 1959.





ASS'T GENERAL MANAGER: Charles E. Brookes, appointed assistant general manager for "Endura" and "Darex" impregnated fiber products by Dewey & Almy Chemical Division, W. R. Grace & Co., Cambridge, Mass.

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Essential Oils, Aromatics

Two advances and one decline were noted among the essential oils. West Indian, 50-55 percent, bay oil advanced 75 cents per pound; pimento leaf advanced 10 cents per pound and spearmint declined 20 cents per pound. The peppermint story is a bit confusing. Some dealers report that the market is getting stronger while others report a price decline. Lemongrass remains strong as does Formosan citronella. Sandalwood remains unchanged.

Price Trends

Advanced
Bay, West Indian, 50-55 percent, 75c. per lb.
Pimento Leaf, 10c. per lb.

Reduced
Spearmint, 20c. per lb.

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Jan. 8, 1960
144.94	144.90	145.72	146.14

For Current Prices see page 9

In a report last week to the annual meeting of the Essential Oil Association, by its president, R. E. Horsey, the following statement was made:

• The strong market for citronella, lemongrass and sandalwood have given greater impetus to the production of synthetic aromatics, which eventually may make the industry independent of natural oils that continually fluctuate in price and supply.

• It is too early to predict what effect recent government rulings on the use of safrol will have on the price of ocotea cymbarum.

• While the United States as a single market remains the largest purchaser of essential oils, overall European purchases are larger and have a greater impact on market prices.

One of the chemical processing companies has recently devised a new method of preserving food. It has designed equipment to freeze-dry vegetables, fruit, and meat so that they can be stored at room temperature.

By the addition of water, the product returns quickly to its original state, closely resembling its fresh condition in taste and appearance.

The new process converts the ice in the fresh frozen food directly to a vapor, eliminating the liquid phase. The resultant dry product, unlike conventional dehydrated food, maintains its original form, volume and cellular structure.

According to the company, freeze-dried foods will be an advantage for camping, traveling, hiking and expedition use. Even for outer space travel, it ventures to say.

Refrigeration is not necessary when these foods are packaged in airtight and water proof containers. Heat will not affect them and cold will not freeze them. They are light in weight which means a saving in transportation costs.

One of the most interesting publications to come to this desk is a recipe book on the various uses of roses, not in scenting perfumes, but in seasoning food.

"Rose Recipes" by Jean Gordon, published by Red Rose Publications, Woodstock, Vermont, describes the many unusual uses of the rose as a food.

"Aside from color and taste appeal roses are a food. A chemical analysis of the petals of the Provins Rose shows them to contain 'vegetable matter and essential oil, gallic acid, coloring matter, albumen, tannin, some salts with a base of potash or chalk, silex and oxide of iron.'

"The medical properties of the rose are still in use today. A monastery in Greece is famous for a packaged rose sugar made from the ancient and rare roses growing in the monastery gardens. This rose sugar has won a number of prizes and award medals in past centuries and in recent years. The direct translation of its virtues reads: 'It has the nicest taste and pampers the stomach . . .'

"In England, during World War II, when space in cargo ships could no longer be used to import tomatoes, oranges and lemons, the usual source of vitamin C, a substitute was sought.

"Scientific analysis found rose hips to be twenty times richer in this vitamin than orange juice and sixty times more than lemons.

"In other words, one-half tablespoon of one serving of rose hip honey or syrup contains 40 milligrams of vitamin C.

"Rose hips also contain more salt, phosphorus, calcium and iron than oranges. Following this discovery the women and Boy Scouts in Scotland collected approximately two hundred tons of the tasty red fruit of the dog rose, the common hedge rose in the British Isles. These were converted into syrup and sold in drug stores.

"Other European countries have been familiar with their use from earlier time and concocted elaborate delicacies with the hips as a basic ingredient.

"This is especially true in Northern Europe where brambles of the wild rose grow thick and unmolested.

"The hips from bushes grown in colder climates are highest in vitamin C but must be sun dried without processing in order to retain this value.

"It is another one of the mysterious wonders of the rose that the flower and its fruit are universal. The wild roses, rosa nitida, blossom for the Eskimos. Iceland has the rosa rubigimosa and Lapland the beauty and colorful fruit of the lovely rosa majalis. This last wild rose is also found in Norway, Sweden and Denmark."

Also announced recently, in the line of food preserving techniques, is a new rapid freezing process whereby the product is bathed in super-cold non-toxic liquid nitrogen.

By this method, food can be frozen in a matter of minutes whereas the standard process of blasting cold air into a chamber takes at least five hours.

The liquid nitrogen process, however, is quite expensive. It costs up to 4.5 cents per pound which is nearly triple the cost of more conventional freezing methods.

One company uses this new method to freeze some foods directly from the oven. Another freezes peeled oranges to get orange crystals for possible use in ice cream and baked goods. Other companies have experimented with nitrogen freezing of tomatoes, corn and pasteries.

Even though the nitrogen freezing process is quite expensive now, its proponents figure that new equipment and larger facilities will lower costs during the next few years.

Essential Oils

Bay—West Indian, 50-55 percent, material has advanced considerably on spot.

From its previous listing $2.50 per pound, it has advanced to $3.25 per pound.

Puerto Rican material remains at its previous listing.

Citronella—The market remains firm.

High prices continue to prevail, but according to news from source the buying and the offerings have subsided.

Clove Leaf—No market changes have been noted in either the bud or the leaf oils, dealers here in the New York area report.

Geranium—Both types of oil remain at their previously quoted levels, $22 per pound.

Grapefruit—Grapefruit oil continues at its $3 per pound price.

Lemongrass—At source the market remains strong. Spot prices continue at their previously quoted levels.

The following information, about the climate needed to grow lemongrass is excerpted from a report by S. V. Appa Rao Patnaik, pharmacist at the government headquarters hospital in Koraput, Orissa in India.

The best type of climate for the growth of the plant material is a warm humid climate with approximately one hundred inches of rainfall, preferably uniformly distributed throughout the year.

The plants require moderately heavy

Essential Oils

rains for healthy development, but they cannot withstand water logging conditions.

For this reason, hill slopes with perfect drainage are conducive for good growth. Because Kerala state is hilly, it is particularly suited for the commercial growth of lemongrass, according to Mr. Patnaik.

The opportunity for growing lemongrass in the Koraput district of Orissa State on a commercial basis is good, Mr. Patnaik writes. Soil and climate conditions there are quite suitable for its growth, since lemongrass demands a warm humid climate, high rainfall, high intensity of relative humidity and moderate temperature.

Under such conditions the grass has been found to grow on a commercial basis by the cultivators in Kerala State. Therefor similar conditions in Koraput district of Orissa would naturally provide all the necessary conditions for its growth.

Lime—No changes have been noted recently in material from Mexico. It continues to be available for $5.35 per pound.

Peppermint—Stories conflict on the actual status of peppermint oil.

Some dealers report that the price is on the rise; others say it is declining. The quotations range from $4.90 to $5.25 per pound.

Pimento Leaf—The market is firming.

From its previous level, $2.40 per pound, pimento leaf has advanced to $2.50 per pound.

Sandalwood—Following the auctions in India, the spot market for oil has not changed, according to reports from source.

A substantial amount of wood was auctioned and prices were slightly higher than those paid at the last auction. This, however, has not caused spot prices to go up—probably because many sandalwood users can hardly afford to pay the current price, much less, a higher one. Already a recently formulated chemical substitute has taken over some of the sandalwood business.

Informed sources speculate that the spot price will not rise appreciably during the next few months. They also say they don't expect it to decline.

Spearmint—Slight weakening is noted in the market.

The quotation heard most often is $8 per pound, but some dealers have material available for as little as $7.80 per pound.

Seeds and Spices

Cassia—Prices remain pretty much at their previous quotations.

Cuminseed—Most grades remain at their previous levels. Turkish recleaned material, however, declined in price. From its previous quotation, 19c. per pound, it has come down to 18c. per pound.

Ginger—No appreciable changes were noted among the various grades of ginger.

Pepper—Pepper generally advanced. Malabar black advanced from 44c. per pound to 47c. per pound. Lampong advanced from 44c. per pound to 47c. per pound. Muntok white advanced from 74c. per pound to 74½c. per pound.

The table below, about Brazil's pepper exports, is from the Foreign Agriculture Circular, published by the US Department of Agriculture.

Vanilla Beans—The spot market remains at its previous level. Firmness continues to prevail.

Bourbon beans continue to range between $7.30 and $8 per pound; Mexican cut beans continue to range between $7.30 and $8 per pound, and Mexican whole beans continue to range between $8.25 and $9 per pound.

These prices very likely will remain in effect even when the new crop material arrives, according to speculation of dealers here in the New York area.

New crop Bourbon material is scheduled to arrive in March; Mexican cut material, in April and Mexican whole material in June or July.

It is said that the Food & Drug Administration's proposed ruling on vanilla standards has had little or no effect on spot market conditions. The ruling is tied up in the courts and may not be clarified for a long while.

BRAZIL: Pepper exports 1956 to 1959 by principal countries of destination, in terms of pounds.

Destination	1956	1957	1958	1959
United States	132,276	1,041,674	557,764	1,909,184
Argentina	.....	.....	577,605	1,388,858
West Germany	19,912	122,355	66,138	1,148,597
Chile	.....	.....	22,046	77,161
Netherlands	.....	.....	.....	639,334
Japan	13,228	.....	121,253	26,455
United Kingdom	.....	.....	.....	282,189
Belgium-Luxembourg	.....	11,023	6,614	22,046
Others	.....	.....	.....	24,251
Total	165,416	1,175,052	1,351,420	5,518,115

Monsanto Hydrocarbons to Monsanto

—Continued from page 5

tee the company and its customers considerable protection against unfavorable supply situations."

The ethylene will be used by the company to produce styrene monomer, which in turn will go into synthetic rubber and polystyrene plastics.

A producer of ethylene since 1942, Monsanto will incorporate eighteen years of its own engineering experience in the designing and construction of the unit.

H. K. Eckert, of Texas City, former assistant general manager of the company's plastics division, has been named general manager of the project. He will report to the executive committee through Felix N. Williams, a vice-president and member of the committee.

In addition to assigning its own engineers to the project, Monsanto has retained Bechtel Corporation, of San Francisco, to assist in design and construction.

Move Started in 1955

Monsanto began to move toward acquisition of petroleum raw material sources in 1955 when it merged with Lion Oil Company, a producer of petroleum and petroleum derivatives.

The Lion Oil unit is expected to contribute significantly to this project. Its natural gas reserves in the area will be used as fuel. Some of the existing liquid reserves will be used directly as feedstock, while others will "back up the raw materials situation through trades and 'swap outs' with other companies."

The company has held an option on the Chocolate Bayou site since February, 1960. The land, located in Brazoria County near the town of Alvin, was purchased from Houston Farms Development Company.

Site preparation will begin at once, and construction is slated to follow in early summer.

D&O Moves to New Location

Dodge & Olcott, Inc., has moved its New York headquarters and laboratories to Manhattan Industrial Center, 75 Ninth avenue, New York 11. D&O, reportedly the oldest company in America specializing in essential oils, aromatics and related products, also maintains a dry materials division in Hawthorne, N.J., and sales offices in principal cities throughout the US.

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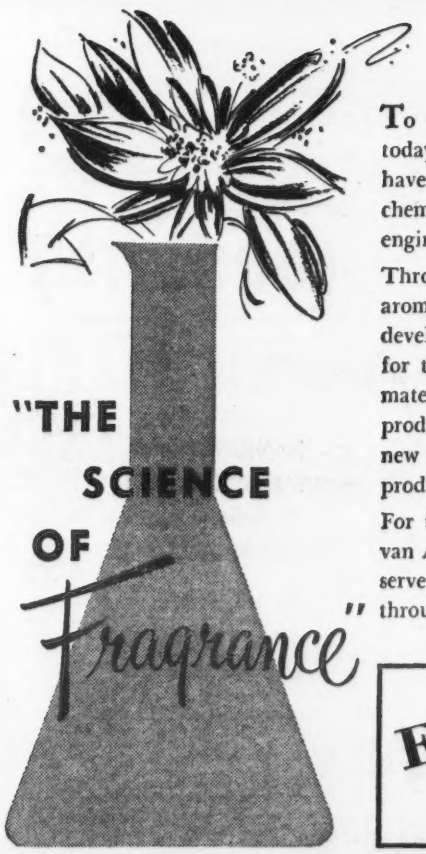

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Coatings Materials

Paint producers had their best November on record in 1960 as total sales of paint, varnish and lacquer climbed to $127 million, reports the Bureau of Census. November's sales performance was $6 million greater than any previous November: in 1959 sales were reported at $121.4 million and for November, 1958 sales were at $121.7 million. Pacing the boost in sales were sizable increases in production.

With many industries reporting less than capacity operations during the last few months of 1960, it is surprising to note that the greatest gain in paint sales was in the industrial finishes. In this category, sales were up almost $7 million compared to the same month of 1959. Paint shared this boost with lacquer sales, both going up about $3.5 million in sales.

In another pigment price boost aqueous pigment dispersions were boosted 1 cent per pound, according to a recently announced price schedule of one leading producer. Many grades of the water dispersed reds, blacks, oranges and yellows. The new prices took effect on January 1. No change was made on the producer's differentials.

Also crossing this desk last week, was an order rescinding the recently announced price advances on the BON maroons, rubine toners and benzidene yellows. The benzidene yellows were to be advanced 10 cents per pound, but was rescinded and listings were returned to their pre-January 1 levels. The rubine toners, both lithol and resinated, are at their old price of $1.47.

Coatings' spot markets continued in its routine nature during the week. Supplies of the natural resins were reported to be ample with prices unchanged. Casein did not stir from its winter sleep. Ranges for Argentine, Polish, and French casein held to the lower side of their quotations. Supplies on the long side, and depressed consumer interest remain the big unsolved problems that have followed casein men into the new year.

Price Trends

Advanced

Alkali blues, flushed and dispersed, 3c. per lb.
Calcium lithol toners, 5c. per lb.
Diisobutyl phthalate, ½c. per lb.
Diethyl phthalate, ¾c. per lb.
Diisobutyl phthalate, ¾c. per lb.
Dimethyloxyethyl phthalate, ½c. per lb.
Dioctyl isophthalate, ½c. per lb.
Green B pigment, 5c. per lb.
Lake Red C,, 5c. per lb.
Methyl violet (PMA), 15c. per lb.

Reduced

Zinc dust, ½c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Jan. 8, 1960
104.56	103.15	103.14	103.03

For Current Prices see page 9

Prime Pigments

Aluminum Paste and Powder—Demand continues to be described as routine by trade sources as the usual year-end inventory taking brings much of the market activity into a routine groove. Supplies and listings are unchanged in condition.

Aqueous Pigment Dispersions—In a recently announced price schedule, one producer has set higher prices for many of the water dispersed pigments. In most cases, the pigments have been boosted an average of 1c. per pound. The new prices went into effect on January 1, and moved the yellows into a range of 59c. to 91c. per pound, depending on the grade of the pigment.

Oranges are also up 1c. per pound. The new price is 89c. per pound, with no changes taking effect on other grade of the oranges. Also escaping price hikes were some grades of the yellows, reds and maroons.

On the water dispersed green pigments, chromium oxide green is up 1c. to a new price of 58c. per pound, while one permanent green, also up 1c., is at a newly quoted price of 41c. a pound. One grade of the greens is up 3c. per pound, but most grades were up 1c. Highest price of the greens is $1.14.

All but one grade of water dispersed blues is at 66c. per pound, according to the announcement made by one leading producer. The one cent per pound increase made the other grade 94c. per pound.

Water dispsered reds were up in only some cases. Lake reds were newly quoted a $1.06 to $1.08 per pound, while some of the para reds were not affected by the change. The one cent per pound increase boosted prics on at least four other of the water dispersed reds. There were no changes on the chlorinated para reds or on the water dispersed maroons.

The producer also states that there are no changes in any geographic or quantity differentials. West deliveries remain 2c. per pound higher.

Maroons—The recently announced price schedule of one leading producer was rescinded in regard to the maroons. Erasing the 5c. per pound increase, returns the producer's listing for BON maroons back to their pre-January 1 range.

BON Maroon-calcium is now at $1.95 per pound, sharing its listing with the BON maroon-manganese pigments which is at the same price. The softened type BON maroon calcium and manganese are at $2.25 and $2.35 per pound, respectively.

Reds—While all of the calcium lithol toners are up 5c. per pound, as of January 1, the rescinding of some of the price increases on the pigments will make some of the reds hold to their pre-January 1 listings. The resinted rubine toners are placed at $1.47 per pound, as well as the resinated lithol rubine toners.

Yellows — The previously announced price boost that was to take effect on January 1 for one producer's benzidine yellows has been rescinded. A 10c. per pound increase was to have boosted listings for all grades of the benzidene yellows to $2.30 per pound. The latest price is $2.20, the same as the one in effect last year.

Violet Methyl Toners — PMA violet methyl toners are newly quoted at $2.95, up 15c. per pound from the old price of $2.80. This price as well as several others were not affected by the recent announcement by one producer that rescinded some of the price increases on some of the pigments.

Zinc Dust—Zinc metal prices dropped another half-cent per pound for the three such decreases in the past month. Metal's lower listing settled dust at 15c. per pound. The declining zinc market has been hit by a variety of unfavorable conditions stemming in part from foreign material under-selling domestic material. Government action in the form of higher tariffs has been proposed, but no aetion as yet has been taken.

Output of furnace blacks were reported at 130.9 million pounds and channel at

Lacquer Materials

Cellulose Acetate/Butyrate — Market continues to be quiet with demand at routine levels. Prices for all grades of cellu-

Coatings Shipments Output: November

	Factory Shipments Dollars		Reported productions Gallons[1]	
	November	October	November	October
Trade sales	$69,700,000	$78,600,000	24,100,000	26,700,000
Industrial sales, total	57,300,000	62,100,000	24,200,000	26,700,000
Paint and varnish	41,000,000	44,600,000	17,700,000	19,700,000
Lacquer	16,300,000	17,500,000	6,500,000	7,000,000
Overall totals	127,000,000	190,700,000	48,300,000	53,400,000

Totals sales Jan.-Nov.: $1,250,000,000.

[1] Estimated total production. About 2 percent of this total was imputed for companies that reported only dollar sales.

Coatings Materials

lose are reported to be holding at the long-standing levels. No change is anticipated in these conditions on the basis of previous performances in this market.

Plasticizers—With plasticizer producers receiving an additional one-cent per pound revenue for their material, some in the trade cannot help but wonder if the higher listings will hold for the remainder of the year.

In 1961, the trade will see additional sources of naphthalene coming on stream. The effect on the naphthalene market situation should be a purgative one if trade estimations hold true. The additional naphthalene, it is felt, will reverse the current market situation and instead of a tight supply situation, there might well be an opposite situation: more than enough material to go around.

The resulting effect on the phthalic anhydride picture should be as correspondingly severe. In turn causing, in what is considered to be a direct proportion, a freeing of the phthalate esters supply.

Once the supplies of the phthalates become more or less in line with demand, a competitive situation within the plasticizers producers own domain could easily result, erasing the January 1 price advance.

Production of dibutyl phthalate during October, as reported by the Tariff Commission, hit 1,274,951 pounds. In the previous month production was closed at 1,172,969 pounds. Dioctyl phthalates (di-n-octyl, di-isooctyl, di (2-ethylhexyl) phthalates and mixtures) output was reported at 11,763,326 pounds as compared to the 13,027,272 pounds turned out during September. Tricresyl phosphate output was estimated at 13,666,734 pounds in October, as against 11,763,326 pounds during the previous month.

Miscellaneous

Animal Glue—Production of animal glue in November was reported at 8.454 million pounds, some 400 thousand pounds greater than in October, but almost 1.4 million pounds below the output for November, 1959.

Shipments of animal glue during November remained at about the same level as in the previous month. November saw 8.337 million pounds shipped, as against 8.033 million pounds in October. Last year, November's shipments totaled 7.114 million pounds.

Stocks of animal glue at the end of November totaled 36.237 million pounds of which hide glue was reported at 22.313 million pounds, and bone glue at 13.924 million pounds. Compared to the previous year, stocks were about 5 million pounds greater than were on hand at the end of November, 1959.

Asbestos—October asbestos fiber shipments were made at levels that were 17 percent higher than the same month in 1959. Shipments at the end of October were estimated to be running at about 84,000 tons or approximately 12 percent ahead of 1959. This upward trend was expected to hold for the remainder of the year.

The export fiber market continues to be very active and according to some reports, will surpass those of 1959 by a considerable margin, once the final totals are in.

Casein—Market for casein continued quiet, listings holding at the levels established for the past few months. Consumer interest remained slight, holding quotations for Argentine, French and Polish casein at the same ranges in previous weeks. Supplies hold at the same high levels, unchanged.

Naval Stores

Pine Gum—For the week ending December 30, prices were reported as fairly steady. Trading slowed down and amounted to 900 drum equivalents, compared to 2,598 for the previous week.

Turpentine trading activity was described as good, while prices held to the lower side of the range. Some sales were at best levels in several months. Overall sales totaled 54,000 gallons.

The average price paid producers for commercial pine gum for the week ended December 23 was reported at $38.40 per barrel. Receipts of 9,000 barrels were 548 less than the same week last year. No loan were reported. The average content per barrell was 7 gallons of turpentine and 296.1 pounds of rosin. Gum grading was: 1 WG, 34 N, 54 M, and 11 K and below.

In CCC loan activity, one producer was reported as pledging to loan 26,636 gallons of turpentine during the week of December 30. Sales for the week were: WW, $16.26, WG, $16, N, $16.75, and M and below, $14.25 to $14.50. Tank car sales were made at $13.50 for M and below. Sales of turpentine were reported at 47 to 48 cents per gallon, with most sales at 47 to 47½c. per gallon. Export sales, f.a.s., WW, 17.10, N, 14.75.

Plastics Outlook

—*Continued from page 4*

faster checkouts have attracted the interest of a number of food chains, he points out.

Total announced industry capacity for high-density now stands at about 330 million pounds, the plastics official reports. But he notes that with the "many problems induces through the variety of different materials needed for specific markets, practical capacity is probably considerably less. Consumption is increasing and now stands at 170 million pounds."

Vinyls Will Jump

Turning to vinyls, a jump to 1,250 million pounds is anticipated for 1961 from an estimated 1,170 in 1969. This figure may be higher if the outlook for building and construction improves.

"Despite increased usage," Mr. Turner says, "an overbuilt situation still exists in the polyvinyl chloride industry—productive capacity being about 35 percent in excess of current sales. Conditions are further aggravated by imports, particularly in film and sheeting: During 1960, some 35 to 40 percent of the domestic rainwear market was held by Japanese imports. As recently as 1958, Japanese imports in this field accounted for only 8 percent of the market."

On the brighter side, the speaker points to coatings and building applications as areas of accelerating growth: "Already widely used for flooring, luminous ceilings, water stops, and both interior and exterior coatings, vinyls are steadily taking over a greater share of these markets as well as beginning to find use in other functional elements in buildings."

Big Rise for Polystyrene

For polystyrene, a substantial rise to 1,120 million pounds is foreseen for 1961, up about 10 percent from an estimated 1,030 million pounds in 1960. The latter figure represents a modest rise of 53 million pounds over the '59 level.

Citing recent expansions in both monomer and polymer capacity, Mr. Turner judges this segment of the plastics business as also substantially overbuilt.

Blow-molding, though originally a polyethylene technic, holds promise for all the thermoplastics, polystyrene included, according to the New York executive. Where polystyrene's properties are adequate, the plastic is held to offer economy in blow-molded applications. One pound of polystyrene is said to provide rigidity equal to that given by 1.4 pounds of polyethylene, and the cost per pound is lower.

With epoxy production in 1960 at 60 million pounds, up from 57 million in 1959, this young group of resins is said to be continuing its modest growth.

"The widespread use of epoxy surfaces on bridges, ramps and other important highway components appears possible in the near future," says Mr. Turner. "Any strong move in this direction during 1961 could very favorably affect the 65-million pound production forecast for that year."

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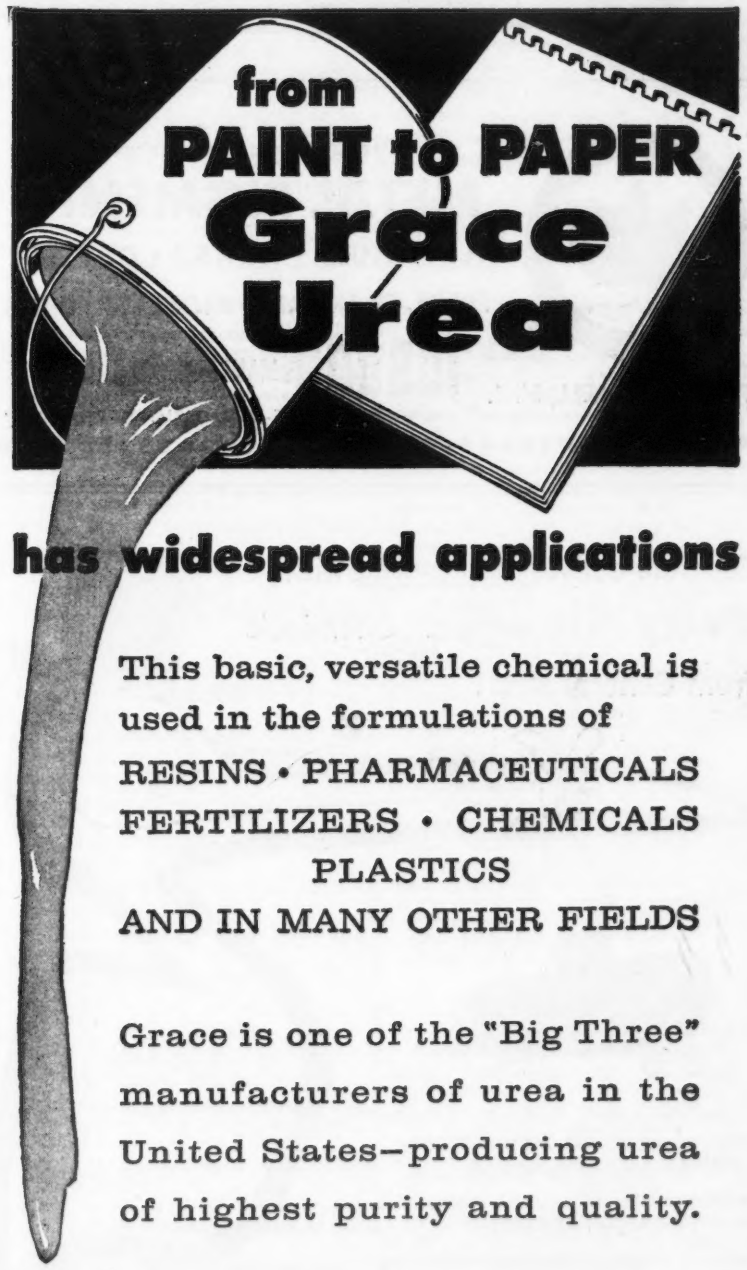

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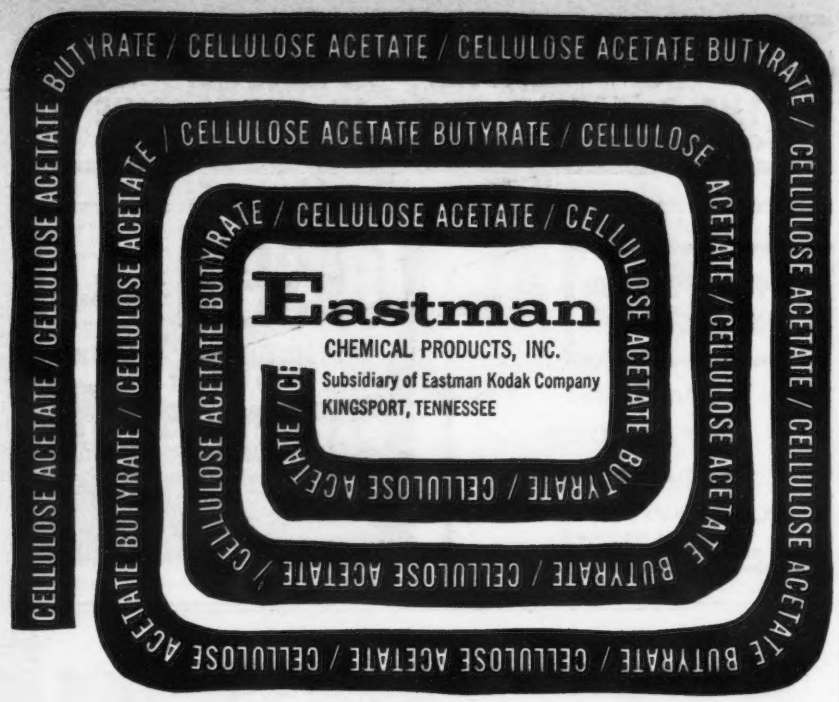

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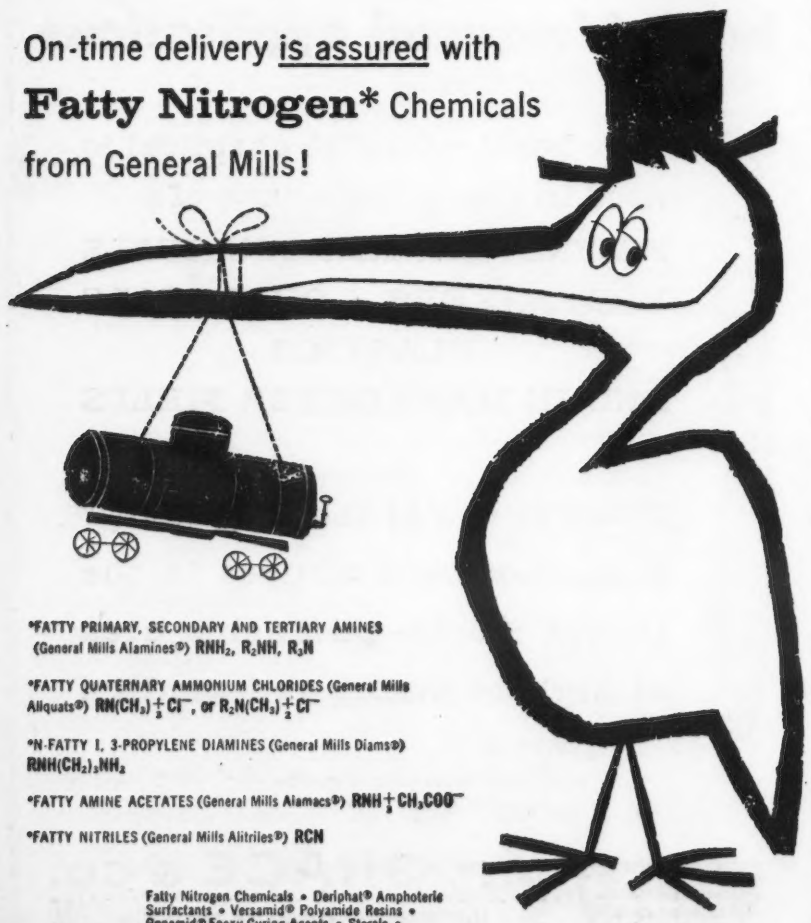

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OPD Reports From Europe

German Chemical Men Rout Gloom

—Continued from page 7

ports, and it takes particular note of the growing activities of US chemical firms in the world market and especially in Europe.

Future moves to tie "Buy America" strings to most US government foreign aid programs will bring "serious difficulties for traditional German chemical exports" in a whole range of markets, the association states without specifying what markets or products it has in mind.

This type of "Buy America" effort in foreign aid has been suggested as one approach to reducing the current American adverse balance of payments.

Impact of US Chemical Firms

One place where international competition and American firms made themselves felt last year was Germany itself. While German chemical exports were rising 16 percent in the first nine months of the year, chemical imports were up about 33 percent in the same period to a record $480 million.

Analysis of these imports shows that finished and semi-finished products rose nearly 36 percent to $428 million through September, while raw material imports were rising only 16 percent to $53 million.

But it's American chemicals that really made an impact on the German market in 1960—with imports from the US up 43 percent in the first three quarters to around $145 million, accounting for about 30 percent of total German chemical imports.

The Chemical Industry Association ruefully notes that while imports from the US were rocketing, German chemical exports to America slumped in the same nine-month period by 17 percent to around $44.4 million.

Imports from other Common Market countries were up almost 40 percent in the first three quarters to $139 million, or just under the amount of imports from the US.

Exports to Europe, Common Market

European countries, and mainly the Common Market partners Holland, Italy and France, accounted for 64 percent of total exports by the German chemical companies.

Such exports to European countries were up 19 percent in the first three quarters to around $695 million, with the Common Market proper taking 25.7 percent of total exports, up 28 percent over the corresponding period of 1959.

While the German chemical sales effort in France has been sensationally successful with volume up about 50 percent over 1959, the seven countries of the European Free Trade Association continue to take slightly more of Germany's chemical exports (27.8 percent) than the Common Market. In the EFTA, Switzerland, Sweden and Austria are the major customers.

One continual worry for German chemical company managements is the rising level of costs. In 1960, the industry association estimates that through shorter working hours and higher wages and salaries labor costs for the industry rose about 11 percent.

Prices have remained generally steady, being only 4 percent above 1950 levels, though prices of organic chemicals in 1960 fell another 3 percent and plastics have been under pressure primarily due to international competition.

GAF's Collway Pigments Fills Management Positions

Two management appointments have been made in the Collway Pigments Division of General Aniline & Film Corporation, New York.

James J. Gannon has been named manager of the technical service laboratory, and will be responsible for technical service and applications research of the division's present pigment product lines, maintaining his headquarters at the Linden, N.J., plant.

Vollney Tullsen has been appointed manager of pigment research and development with responsibility for present pigment product lines. He will also maintain his headquarters at the Linden plant.

Lambert Names Rowlson

Lambert Corporation of Florida, Orlando, Fla., has appointed C. R. Rowlson as sales manager. Mr. Rowlson, a chemical engineer in paint technology, has been connected with the paint, varnish and lacquer industry for more than twenty years. His new position comprises sales supervision, promotion of new products and related duties. His headquarters will be in Orlando.

Depreciation Tax

—Continued from page 3

ful life required to be placed on their equipment for tax purposes.

About 20 percent attributed the inadequacy to inappropriate timing of allowances, which resulted in an insufficient allowance during the early years of service of the equipment.

About 70 percent considered the change in price levels between the start of the depreciation period and the end of the "useful" life to be the major cause of inadequacy.

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Dryer: Bowen lab. spray, st. st
Evaporator: Buflovak sgl. eff. st.st. 94 sq. ft.
Dryer: Porter 2 x 4' vac. drum, st st.
Centrifugal: Tolhurst 26" rubber. 2-speed.
Filter: Sweetland #5 st. st. lined.
Filter: Eimco, drum 16" x 12".
Centrifugal: Tolhurst 48" st. steel.
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Mixers: Ross 150 gal. paste, 10 hp.
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3—Devine & Stokes Vac. Shelf Dryers.
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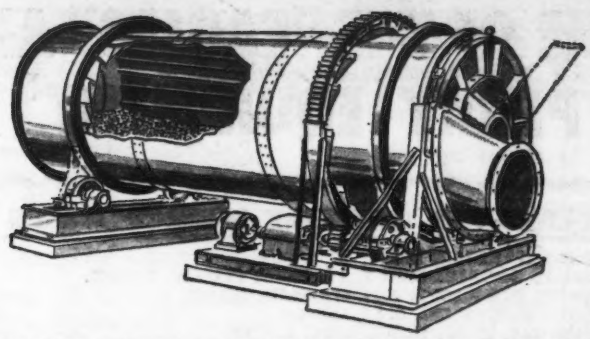

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2—Fletcher 48" Suspended 316 S.S. Perforated Basket.
2—Sharples #16, 304 S.S., 3 HP motor.

REACTORS — EVAPS — CONDS — TANKS

1—Glascote 500 gal. glass lined jacketed agitated Reactor.
1—150 gal. 304 S.S. jacketed agitated Reactor.
3—Pfaudler 200 gal. glass lined jacketed Kettles.
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1—Pfaudler 12" wiped film Evaporator.
1—700 sq. ft. Buflovak 304 SS forced circulation Evaporator.
1—550 sq. ft. Buflovak monel single effect Evaporator.
1—7500 gal. 316 S.S. Vert. Storage Tank, 7'x25', 50 psi.
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1—#5 Sweetland Filter 304 S.S. 120 sq. ft.
1—Oliver 6' dia. Horizontal Filter, 316 S.S.
1—Oliver 5' x 6' Steel Rotary Vacuum Precoat Filter.
1—U.S. 200 sq. ft. 304 S.S. Auto-Jet Filter.
1—Hercules 400 sq. ft. 304 SS pressure Filter.
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1—Feinc 5'x6' Stainless Steel Rotary Vacuum Filter.
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1—Baker Perkins 5'6"x6' Rotary Vacuum Dryer.
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2—Louisville Rotary Steam Tube 5'x25', 6'x35' 6'x50'.
2—Louisville 8'x50' Stainless Steel lined Rotary Dryers.
9—Rotary Dryers 34"x30', 4'x40', 6'x50', 6'x60', 7'x80', 8'x87'.
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1—Baker Perkins 50 gal. jacketed, double arm.
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ANTIMONY OXIDE—643 bgs, National Lead Co, Liverpool
ANTIMONY REGULUS—100 cs, Indussa Corp, Antwerp
ARABIC GUM—510 bgs, H Heide, Port Sudan
1,016 bgs, Morningstar Paisley Inc, Port Sudan
1,551 bgs, T M Duche & Sons, Port Sudan
550 bgs, Lo Curto & Funk, Port Sudan
250 bgs, Meer Corp, Port Sudan
150 bgs, Colony Import & Export Corp, Port Sudan
120 bgs, Port Sudan
ARSENIC, WHITE—62 dms, Lo Curto & Funk, Marseille
720 dms, American Firstoline Corp, Marseille
ASBESTOS FIBER—4,000 bgs, Huxley Westfried Corp, Lourenco Marques
BARIUM TITANATE—3 dms, Genoa
BEESWAX—14 bgs, F D Keller & Sons, Vera Cruz
71 bgs, H H Pike & Co, Tampico
50 bgs, Machado & Co, Puerto Plata
103 bgs, Tampico
BENZOSULFIMIDE—40 dms, D Hauser, Yokohama
BLEACHING POWDER—100 dms, Chemical Manufacturing Co, Liverpool
BOIS DE ROSE OIL—15 dms, Gillespie & Co, Iquitos
4 dms, Fritzsche Bros, Iquitos
10 dms, Hollander Trading Corp, Iquitos
30 dms, Astoria Pan Americana, Iquitos
6 dms, Lo Curto & Funk, Callao
20 dms, Northam Trading Co, Callao
BRONZE POWDER—10 dms, B F Drakenfeld, Bremen
40 dms, L Uhlfelder, Hamburg
CADMIUM CHLORIDE—6 dms, Antwerp
CALCIUM CARBONATE—600 bgs, Whittaker Clark & Daniels, Liverpool
1,000 bgs, Smith Chemical & Color Co, Liverpool
800 bgs, Pluess Staufer, Antwerp
CALCIUM CYCLAMATE—25 dms, Rotterdam
CALCIUM GLUCONATE—20 bbls, Gyma Lab, Genoa
15 dms, Rottergam
CALCIUM PERBORATE—10 dms, Sinclare & Valentine, Gothenburg
CALCIUM SILICIDE—294 cans, Silvey Shipping Co, Marseille
CAMPHOR OIL—15 dms, D W Hutchinson & Co, Yokohama
CANANGA OIL—2 dms, Simpson Spence & Young, London
6 dms, International Products Corp, Liverpool
CANAGRIA ROOT—30 bgs, F D Keller & Son, Tampico
CARAWAY SEED—100 bgs, Rotterdam
CARBAZOLE—5 dms, Terra Chemicals Inc, Rotterdam
CARBOXYMETHYL CELLULOSE—440 bgs, Procter & Gamble Co, Gothenburg
CARDAMOM SEED—50 cs, Wm E Martin & Sons, Puerto Barrios
CASEIN—2,234 bgs, Hamburg
CASHEW NUT SHELL LIQUID—140 tons, Mangalore
CASSIA—596 bls, R J Spitz, Saigon
350 bls, A G Dunn, Saigon
2,890 bls, Rotterdam
CASTOR OIL—250 tons, Baker Castor Oil Co, Recife
CELERY SEED—145 bgs, R T French, Marseille
60 bgs, Levy & Lewis Co, Marseille
100 bgs, K H Landes & Co, Marseille
50 bgs, Hismoco American Co, Bombay
350 bgs, C Czarinkow, Bombay
CETYL ALCOHOL—72 cs, Aceto Chemical Co, Liverpool
CHESTNUT EXTRACT—400 bgs, Bordeaux
CHLORINATED RUBBER—900 bgs, C M C Chemicals Inc, Liverpool
CINNAMON BARK OIL—1 cs, Schimmel & Co, Galle
CINNAMON QUILLS—50 bls, Fritzsche Bros, Colombo
50 bls, Max Van Pels, Colombo
CITRONELLA OIL—11 dms, Fritzsche Bros, Galle
5 dms, Holland Colombo Trading Society, Keelung
100 dms, L A Champon & Co, Keelung
CLOVE—100 bgs, Zanzibar
CLOVE OIL—24 dms, Zanzibar
COBALT OXIDE—520 cks, Antwerp
COBALT POWDER—24 dms, C Hardy, Havre
66 bgs, Usine Industries, Marseille
COCHINEAL—87 bgs, Callao
COCONUT OIL—24 tons, Canerpa Ltd, Rotterdam
136 tons, Faliek Products Co, Rotterdam
750 tons, American Trust Co, Cebu
COCONUT OIL, FATTY ACID—37 dms, Carter Products Co, Liverpool
CODLIVER OIL—80 dms, Dyson Shipping Co, Keflavik
75 dms, Arista Oil Products Corp, Keflavik
COLORS—162 cs, Transatlantic Pigment Corp, Hamburg
COPAIBA BALSAM—1 dm, Peter Andrea Corp, Manaus
COPPER CYANIDE—100 dms, Chemical Manufacturing Co, Liverpool
CORIANDER OIL—17 cs, Kolon Trading Co, Antwerp
CORIANDER SEED—250 bgs, M J Golombeck, Buenos Aires
CORN OIL—400 tons, Rotterdam
CORN STARCH—3,040 bgs, Antwerp
548 bgs, Rotterdam
CROTONIC ACID—22 dms, Hostachem Corp, Rotterdam
CUBE POWDER—535 bgs, Foreign Domestic Distributors, Callao
CUBE ROOT—855 bls, Merton Trading Co, Iquitos
CUMIN SEED—300 bgs, Manufacturers Trust Co, Khorramshahr
CYANOACETAMIDE—10 cks, Havre
DAMMAR GUM—140 bgs, O G Innes Corp, Singapore
210 bgs, Chase Manhattan Bank, Singapore
DEGRAS—40 dms, Hugh J Meeter Co, Rotterdam
53 dms, N I Maimstram, Rotterdam
20 cs, Duke Lab, Bremen
22 dms, Midwest Overseas Trading Corp, Liverpool
11 dms, Olympic Shipping Co, Liverpool
5 dms, Genoa
DEXTRIN—400 bgs, Bestick Adhesives Inc, Rotterdam
417 bgs, Stein Hall & Co, Rotterdam
800 bgs, Morningstar Paisley Inc, Rotterdam
80 bgs, Rotterdam
2,4-DINITROPHENYLHYRAZINE—6 kgs, Olin Mathieson Chemical Corp, Liverpool
DYES, COALTAR—158 dms, H Bruckmann & Lorbacher, Hamburg
EPSOM SALT—400 bgs, Lo Curto & Funk, Hamburg
FATTY ALCOHOL—97 tons, Onyx Oil & Chemical Co, Aarhus
FISHLIVER OIL—28 dms, Mitsubishi Corp, Yokohama
FUEL OIL—100,233 bbls, Central Petroleum Corp, Punta Cardon
177,061 bbls, Metropolitan Petroleum Corp, Punta Cardon
138,372 bbls, Metropolitan Petroleum Corp, Puerto La Cruz
82,018 bbls, American Oil Co, Punta Cardon
128,325 bbls, Humble Oil Co, Caripito
576,000 bbls, Humble Oil Co, Aruba
408,703 bbls, Humble Oil Co, Las Piedras
132,443 bbls, Hess Inc, Maracaibo
GELATIN—200 bgs, T M Duche & Sons, Antwerp
100 bgs, H Bruckmann & Lorbacher, Rotterdam
100 bgs, T M Duche & Sons, Gothenburg
200 dms, Franco Belgian Corp, London
150 cks, Corbett & Co, Marseille
200 bgs, United Hat Fur Cutting Co, Leghorn
100 bbls, Havre
50 cs, Rotterdam
GERANIUM OIL—10 dms, Centflor Manufacturing Co, Mombasa
9 dms, Polarome Manufacturing Co, Mombasa
5 dms, Ufinindo International Corp, Mombasa
2 dms, J Manheimer, London
GERANIUM OXIDE—20 cs, Antwerp
GLUE—650 bgs, Jung Forwarding Co, Liverpool
50 bgs, F H Cone, Hamburg
GRAPHITE—900 bgs, Joseph Dixon Crucible Co, Bremen
250 bgs, Hanover Bank, Colombo
500 bgs, C Pettinos, Colombo
250 bgs, Dares Salaam
GUAR GUM—700 bgs, J L Quesada, Valencia
3,368 bgs, Stein Hall & Co, Karachi
4,500 bgs, Stein Hall & Co, Calcutta
1,016 bgs, Bombay
GYPSUM—400 bgs, Hammill & Gillespie, Liverpool
IODINE, CRUDE—289 bbls, Chilean Nitrate Sales Corp, Antofagasta
176 bbls, Antony Gibbs, Antofagasta
IRON BLUE—38 dms, Van Oppen & Co, Liverpool
IRON OXIDE—10 cks, J H Rhodes, Liverpool
220 bgs, Hudson Shipping Co, Oslo
ISOBORNYL ACETATE—5 dms, Lo Curto & Funk, Hamburg
KAOLIN—4 cs, A L Ettlinger, Bremen
KARAYA GUM—330 bgs, Jacques Wolf & Co, Bombay
27 bgs, Meer Corp, Bombay
246 bgs, Block Drug Co, Bombay
122 bgs, Morningstar Paisley Inc, Bombay
LACTIC OCID—50 dms, A Millner & Co, Liverpool
50 dms, Ellyda Imports, Rotterdam
LACTOSE—200 bgs, Mutchler Chemical Co, Rotterdam
40 dms, Rotterdam
LAUREL LEAVES—164 bls, Reliable Mercantile Co, Izmir
175 cs, Near East Co, Izmir
83 bls, National City Bank, Piraeus
333 bls, M J Golombeck, Izmir
LAUROYL PEROXIDE—80 dms, Rotterdam
LEMONGRASS OIL—30 dms, Lo Curto & Funk, Puerto Barrios
25 dms, Leonhardt & Brush, Puerto Barrios
20 dms, International Flavors & Fragrances Inc, Cochin
LIME OIL—1 dm, Citrus & Allied Essential Oils Co, Puerto Plata
LIVER EXTRACT—13 cs, Banner Pharmaceuticals, Genoa
MAGNESITE—10 dms, Madison Lewis Inc, Hamburg
MAGNESIUM CARBONATE—50 cs, Chas L Huisking & Co, Genoa
MANGROVE BARK—720 bgs, Chemical Bank, Dar es Salaam
1,480 bgs, Chemical Bank, Kilwa Masoko
MANGROVE EXTRACT—200 bgs, Saxe Cutch Corp, Singapore
MARJORAM LEAVES—42 bls, Wm E Martin & Sons, Marseille
100 bls, K H Landes & Co, Marseille
MENTHOL—22 cks, Chase Manhattan Bank, Marseille
75 cs, J Manheimer, Muroran
50 cs, Paul A Dunkel, Keelung
30 cs, Magnus Mabee & Reynard, Keelung
MINERAL LURRICATING OIL—200 dms, Asiatic Petroleum Corp, Rotterdam
MOLASSES—1,110 tons, Pacific Molasses Co, Salaverry
MUSTARD SEED—1,100 bgs, Plochman & Harrison, Copenhagen
200 bgs, Kellys America Ltd, Copenhagen
200 bgs, Berns & Koppstein, Copenhagen
1,000 bgs, Louis Furth, Copenhagen
2,012 bgs, Bank of Montreal, Hamburg
300 bgs, P H Petry, Copenhagen
1,000 bgs, Copenhagen
NAPHTHALENE—500 bgs, Gallard Schlesinger, Antwerp
600 bgs, Gallard Schlesinger, Hamburg
2,500 bgs, Rotterdam
563 bgs, Antwerp
NAPHTHENIC ACID—136 dms, Imperial Oil Ltd, Barranquilla
NUTMEG—70 bgs, Catz American Co, Singapore
135 bgs, M J Golombeck, Singapore
42 bgs, Bank of America, Singapore
195 bgs, Chase Manhattan Bank, Singapore
120 bgs, K H Landes & Co, Singapore
60 bgs, Rence Import Export Co, Singapore
48 bgs, Singapore
NUTMEG OIL—1 dm, Simpson Spence & Young, London
OIL ACID—22 tons, M Michel & Co, Rotterdam
OLIVE OIL—488 dms, Gem Packing Co, San Feliu de Guixols
49 dms, Mawer Gulden Anis Co, San Feliu de Guixols
25 dms, Old Monk Olive Oil Co, Marseille
60 dms, Tunis
ORANGE OIL, BITTER—2 dms, Citrus & Allied Essential Oils Co, Puerto Plata
OREGANO LEAVES—141 bgs, Chemical Bank, Piraeus
221 bgs, H Marmorek & Son, Tampico
OURICURY WAX—222 bgs, Wm H Muller, Rotterdam
PAPAIN—238 cs, Bemo Shipping Co, Mombasa
20 cs, Paul Lewis Lab, Mombasa
51 cs, Chas Huisking & Co, Colombo
112 chts, Kellys America Ltd, Colombo
41 chts, V Cordovi, Colombo
16 cs, J E Siebel Sons, Dar es Salaam
240 cs, Chas L Huisking & Co, Mombasa
PAPRIKA—400 bgs, Meer Corp, Hamburg
300 bgs, R T French, Hamburg
1,800 bgs, National City Bank, Istanbul
PATCHOULI OIL—3 dms, Simpson Spence & Young, London
18 dms, Chase Manhattan Bank, Penang
83 cs, J Manheimer, Penang
PECTIN—243 dms, T M Duche & Sons, Copenhagen
PEPPER, BLACK—80 bgs, M J Golombeck, Alleppey
80 bgs, California Commodity Corp, Alleppey
140 bgs, Atlanta Textile Corp, Singapore
140 bgs, C Czarinkow, Singapore
350 bgs, Mutual Spice Co, Singapore
210 bgs, C M Van Sillevoldt, Singapore
110 bgs, George Uhe Co, Singapore
350 bgs, Ludwig Mueller, Singapore
80 bgs, W L Willner, Singapore
210 bgs, M J Golombeck, Singapore
700 bgs, A G Dunn, Singapore
70 bgs, Kellys America Ltd, Singapore
490 bgs, Singapore
PEPPER, RED—100 bgs, Louis Furth, Iskenderun
600 bgs, M J Golombeck, Iskenderun
498 bgs, Hismoco American Co, Iskenderun
100 bgs, Mutual Spice Co, Iskenderun
200 bgs, Mitsubishi Corp, Yokohama
PEPPER, WHITE—100 bgs, Mitsui & Co, Belem-Para
350 bgs, A G Dunn, Singapore
70 bgs, K H Landes & Co, Singapore
PETROLEUM, CRUDE—287,410 bbls, Phillips Petroleum Co, La Salina
197,711 bbls, Sohio Petroleum Co, Maracaibo
110,590 bbls, Mobil Oil Co, Puerta La Cruz
273,715 bbls, California Oil Co, Sidon
PHENACETIN—100 kgs, Copenhagen
p-PHENETIDINE—8 cks, Havre
a-PICOLINE—25 dms, International Chemical Corp, Liverpool
PIMENTO—16 bgs, Kellys America Ltd, Kingston
PIMENTO LEAF OIL—3 dms, Magnus Mabee & Reynard, Kingston
POLYVINYL ACETATE EMULSION—30 dms, Lloyd Associates, Bremen
POLYVINYL CHLORIDE RESIN—500 bgs, Usher Plastics, Yokohama
POPPYSEED—200 bgs, C M Van Sillevoldt, Rotterdam
200 bgs, Louis Furth, Izmir
700 bgs, Izmir
500 bgs, Rotterdam
POTASSIUM CYANIDE—100 dms, Chemical Manufacturing Co, Liverpool
POTASSIUM METABISULFITE—100 dms, American Firstoline Corp, Rotterdam
POTATO STARCH—430 bgs, Stein Hall & Co, Rotterdam
PYRETHRUM EXTRACT—105 dms, Mombasa
QUINCE SEED—20 bgs, Khorramshahr
SACCHARIN—16 dms, Minferment Ltd, Yokohama
SANDALWOOD OIL—4 cs, Antone Chiris Co, Cochin
5 cs, Fritzsche Bros, Cochin
SAPONIN—10 dms, Karr Ellis, Liverpool
SEEDLAC—400 bgs, Wm Zinsser & Co, Calcutta
100 bgs, Bankers Trust Co, Bangkok
SESAME OIL—60 cs, Tienley Co, Yokohama
SHELLAC—150 bgs, Gillespie Rogers Pyatt, Calcutta
75 bgs, Colony Import & Export Corp, Calcutta
290 bgs, National City Bank, Hamburg
SODA, CAUSTIC—90 dms, B T Chemco Inc, Gothenburg
SODIUM ALGINATE—30 cks, E Mendell Co, Havre
SODIUM BICHROMATE—500 bgs, Ferro Metal & Chemical Corp, Durban
SODIUM CARBONATE MONOHYDRATE—100 bgs, Chemical Manufacturing Co, Liverpool
SODIUM CYANIDE—1,220 dms, Chemical Manufacturing Co, Liverpool
SODIUM GLUTAMATE—400 dms, Kayron Chemicals, Dunkirk
SODIUM PERBORATE TETRAHYDRATE—1,507 bgs, Chemical Manufacturing Co, Liverpool
SODIUM SILICOFLUORIDE—600 bgs, Riches Nelson, Rotterdam
SODIUM VINYL SULFONATE—15 cbys, Union Carbide Chemical Co, Rotterdam
SPEARMINT OIL—10 cs, Lo Curto & Funk, Muroran
STARCH—250 bgs, Connell Rice & Sugar Co, Rotterdam
SULFADIAZINE—10 dms, American Roland Corp, Antwerp
SULFUR—50 bgs, Hamburg
TALC—1,143 bgs, Whittaker Clark & Daniels, Bombay
TAMARIND POWDER—100 bgs, J L Quesada, Valencia
TAPIOCA FLOUR—7,728 bgs, Morningstar Paisley Inc, Kahsichang
2,240 bgs, Tapioca Associates, Kohsichang
7,289 bgs, Stein Hall & Co, Kohsichang
1,344 bgs, Manhattan Adhesives Corp, Penang
1,344 bgs, Poons Co, Kohsichang
TARTARIC ACID—1,750 bgs, Leonhardt & Brush, San Feliude Guixols
100 bgs, Marseille
THYME LEAVES—60 bgs, Louis Furth, Marseille
THYROID POWDER—10 dms, Hudson Pharmacal Co, Copenhagen
5 dms, Van Gelder Fanto Corp, Copenhagen
TOLU BALSAM—25 cs, J M Rodrikuez & Co, Barranquilla
P-TOLUENEDIAMINE SULFATE—10 dms, Roux Lab, Dublin
TONKA BEANS—40 cs, Meer Corp, Rio de Janeiro
TRAGACANTH GUM—163 bgs, Am-Iran Corp, Khorramshahr
486 bgs, Khorramshahr
UREA, SYNTHETIC—60 bgs, Chemical Manufacturing Co, Liverpool
VANILLA BEANS—26 cs, Singapore
VEGETABLE OIL—10 dms, Feder Devold Oil Co, Rotterdam
VETIVER OIL—2 dms, Ufinindo Corp, Fort Au Prince
WATTLE BARK—1,084 bls, Bowring & Co, Capetown
WATTLE EXTRACT—558 bgs, A C Trask, Dar es Salaam
534 bgs, International Products Corp, Durban
WOOL WAX ACIDS—13 dms, Olympic Shipping Co, Liverpool
XYLENOL—30 dms, Midland Tar Distillers, Liverpool
ZINC OXIDE—400 cs, C B Chrystal Co, Marseille
ZINC YELLOW—600 bgs, Reveill Chemicals, Antwerp

Los Angeles

ASBESTOS FIBER—1,076 bgs, Johns Manville Corp, Singapore
CARAWAY SEED—150 bgs, Hismoco American Co, Rotterdam
FISHMEAL—10,171 bgs, F P Dow & Co, Callao
6,522 bgs, Chimbote
2,174 bgs, Callao
FUEL OIL—216,897 bbls, Standard Oil Co, Aruba
IRON OXIDE—682 bgs, F D Davis Co, Hamburg
NUTMEG—24 bgs, California Commodities Corp, Singapore
PEPPER, RED—100 bgs, Fan Asiatic Trading Co, Yokohama
200 bgs, California Commodities Corp, Yokohama
PEPPER, WHITE—35 bgs, MacAlbert Co, Singapore
POPPYSEED—50 bgs, Hismoco American Co, Rotterdam
TAPIOCA FLOUR—4,668 bgs, Stein Hall & Co, Bangkok
XANTHATES—558 dms, Montreal

Philadelphia

BONE—992 bgs, Velleman Corp, Buenos Aires
143 tons, Trans Atlantic Animal By-Products Corp, Buenos Aires
CASEIN—100 bgs, F H Paul & Stein Bros, Buenos Aires
CORN STARCH—300 bgs, Impex Corp, Rijeka
FUEL OIL—122,731 bbls, Hess Inc, Punta Cardon
GYPSUM, CRUDE—15,849 tons, U S Gypsum Co, Hantsport
HEXANOL—140 dms, Hamburg
LICORICE ROOT—6,258 bls, Genoa
MAGNESITE—1,350 tons, Split
OLIVE OIL—23 dms, Phila National Bank, Seville
PETROLEUM, CRUDE—260,828 bbls, Gulf Oil Corp, Puerto La Cruz
269,861 bbls, Gulf Oil Corp, Banias
471,628 bbls, Gulf Oil Corp, Mina Al Ahmadi
318,716 bbls, Mobil Oil Co, Covenas
297,913 bbls, Mobil Oil Co, Mina Al Ahmadi
213,235 bbls, Mobil Oil Co, San Lorenzo
130,196 bbls, Atlantic Refining Co, Pamatacual
107,184 bbls, Atlantic Refining Co, Puerto Miranda
116,002 bbls, Atlantic Refining Co, Punta de Palmas
362,143 bbls, Atlantic Refining Co, Puerto La Cruz
109,406 bbls, Texaco Co, Pamatacual
221,995 bbls, Texaco Co, Covenas
305,149 bbls, Texaco Co, Granada
194,361 bbls, Texaco Co, Trinidad
143,918 bbls, Texaco Co, Pointe a Pierre
QUEBRACHO EXTRACT—970 bgs, Tan American Corp, Buenos Aires
TAPIOCA FLOUR—4,410 bgs, Geismar & Co, Itajai
100 bgs, Santos
VANILLA BEANS—60 cs, Zink & Trieste, Tampico
ZINC WHITE—1,000 bgs, Reveill Chemicals, Antwerp
ZIRCON SAND—998 bgs, Sydney

San Francisco

AMMONIUM CHLORIDE—360 bgs, Chemical Manufacturing Co, Liverpool
BLEACHING POWDER—60 dms, Chemical Manufacturing Co, Liverpool
CALCIUM CARBONATE—2,000 bgs, Pluess Staufer, Antwerp
CALCIUM CHLORIDE—500 bgs, P W Bellingall, Antwerp
CARAWAY SEED—100 bgs, Wheeler & Miller, Rotterdam
CASEIN—592 bgs, J R Spellacy, Sydney
1,000 bgs, International Casein Corp, Gothenburg
CELERY SEED—87 bgs, California Commodities Corp, Bombay
COPPERAS—267 bgs, P W Bellingall, Kobe
CUMIN SEED—1,366 bgs, T P Gonzales Corp, Kobe
91 bgs, California Commodities Corp, Kobe
DEXTRIN—290 bgs, Morgan Guaranty Trust Co, Amsterdam
100 bgs, H B Fuller & Co, Amsterdam
FERROUS SULFATE—454 bgs, C Itoh & Co, Kobe
JAPAN WAX—11 cs, P W Bellingall, Kobe
LACTALBUMIN—678 bgs, A J Mills & Co, Auckland
666 bgs, A J Mills & Co, Wellington
MINERAL COLORS—364 bgs, Reliance Chemical Co, Hamburg
MOLASSES—3,107 tons, National Molasses Co, Manzanillo
MONOSODIUM GLUTAMATE—131 cs, Oriental Trading Co, Yokohama
210 cs, Ajinomoto Co, Yokohama
NUTMEG—64 bgs, Hismoco American Co, Singapore
OREGANO—234 bgs, H M Newhall & Co, Salina Cruz
PEPPER, BLACK—70 bgs, California Commodities Corp, Singapore
770 bgs, Singapore
RUTILE SAND—20,828 bgs, Brisbane
SESAME SEED—100 bgs, Hismoco American Co, Salina Cruz
25 bgs, W R Grace & Co, Salina Cruz
SODIUM BICARBONATE—100 bgs, Chemical Manufacturing Co, Liverpool
SODIUM CYANIDE—234 dms, Chemical Manufacturing Co, Liverpool
TRICHLOROETHYLENE—60 dms, Chemical Manufacturing Co, Liverpool

Bids Wanted

Anhydrous Chlorine, 80 tons, estimated value $8,000, bids invited until January 18 by the Greek Water Company, 4 Kolotroni Street, Athens, Greece. Bidding instructions, specifications, and other pertinent data are available from the Bureau of Foreign Commerce, Office of Trade Promotion, US Department of Commerce, Washington 25, D.C.

Benzene Hexachloride, 300 tons, for Directorate General of Agriculture, bids invited until Jan. 21 by the President, Central Foreign Purchasing Board, Baghdad, Iraq. Tender documents may be obtained from the Secretary of the Board, Ministry of Finance on payment of $1.40 per set.

Enamel, Spec. Fed. TT-EA-529A, Class A (QPL), 6,552 gals., Bid IFB 155-1909-61B, Jan. 26. **Dope,** various mil. specs., (QPL), 11,910 gals., various destinations. Bid IFB 155-1297-61B, Jan. 26. **Plastic Coating Compound,** 4,080 gals., Spec. Mil. B-12121C, Ord. type I, (QPL), delivery to MCSC, Albany, GA. Bid IFB 155-1887-61B, Jan. 17. **Enamel Lusterless,** Spec. TT-E-A-76A, ement, 1,145 gals., Bid IFB 155-1908-61B, Jan. 26. Military Industrial Supply Agency, 700 Robbins Ave., Philadelphia 11, Pa.

Ferrous Sulfate, USP, 0.324 gm., 1000S, 30,480 bots., Bid IFB 32-173-61B, Jan. 9. Military Medical Supply Agency, 29th St. and 3rd Ave., Brooklyn 32, N. Y.

Glycerine, Grade B, 8 gravity, Fed. Spec. O-G-491(A), dated Feb. 17, 1955, 252,000 lbs., Bid IFB 174-79-61, Jan. 23, Naval Propellant Plant, Indian Hd., Md.

Pharmaceuticals, Acetylsalicylic Acid, Acetophenetidin, and Caffeine Tablets NF, 1000S, 149,760 bots., Bid IFB 32-181-61B, Jan. 12. Military Medical Supply Agency, 3rd Ave. and 29th Street, Brooklyn 32, N. Y. **Chloroquine Phosphate Tablets,** USP 0.5 gm., 1000S, 3,544 bots., Bid IFP 0062Q, Jan. 16. Military Medical Supply Agency, 3rd Ave. and 29th St., Brooklyn 32, N. Y.

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POTASSIUM CYANIDE
COPPER CYANIDE
PERCHLORETHYLENE
NICKEL CARBONATE
NICKEL SULPHATE
NICKEL CHLORIDE
NICKEL ANODES
COBALT SULPHATE

HOLBROOK, MASS.
BOSTON 10, MASS.
MIDDLETOWN, CONN.
PROVIDENCE 3, R. I.
PHILADELPHIA 6, PA.
BALTIMORE 1, MD.
CHICAGO 1, ILL.

Philipp Brothers Chemicals, Inc.
COLISEUM TOWER BUILDING
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